DOCUMENT RESUME

ED 144 860 SO 010 239

AUTHOR Dawson, George G., Ed.
TITLE Economic Education Experiences of Enterprising Teachers, Volume 13. A Report Developed from the 1974-75 Entries in The International Paper Company Foundation Awards Program for the Teaching of Economics.
INSTITUTION Joint Council on Economic Education, New York, N.Y.
PUB DATE 76
NOTE 122p.; For a related document, see ED 104 752
AVAILABLE FROM Joint Council on Economic Education, 1212 Avenue of the Americas, New York, New York 10036 ($2.00 paperbound, $1.60 each for 10 copies or more)

EDRS PRICE MF-$0.83 Plus Postage. HC Not Available from EDRS.
DESCRIPTORS Awards; Business Education; Case Studies; Consumer Economics; *Curriculum Development; *Economic Education; Economics; Educational Practice; Effective Teaching; Elementary Secondary Education; Evaluation; Higher Education; Instructional Innovation; Interdisciplinary Approach; *Learning Activities; Projects; Reports; Social Studies; *Social Studies Units; Student Attitudes; Teaching Experience; *Teaching Techniques

ABSTRACT

The publication outlines 19 award winning economic education projects for use on levels K through college. The projects have been judged original and interesting to students and have met contest criteria by describing class situation, scope and sequence, goals, motivational devices, teaching techniques, samples of student work, culmination activities, and evaluation techniques. The report is presented in five chapters. In chapter I, four projects for grades K-3 are described. Activities include parents' show and tell, writing checks, opening savings accounts, producing and selling products, and collecting data on inflation. The four projects in chapter II, for use in grades 4-6, involve the students in group investigation of community change, observation of building construction, simulations, and shopkeeping. Chapter III presents activities for junior high school, including mathematics, community simulation, and career awareness games and production of goods from polyester resin. Activities described in chapter IV for high school students include a mini-unit on sports and economics, seminars on economic concepts, market simulation, and a toy survey for a consumer council. College level activities, presented in chapter V, include relating economics to art history, personal interests, and grades. (Author/DB)

Documents acquired by ERIC include many informal unpublished materials not available from other sources. ERIC makes every effort to obtain the best copy available. Nevertheless, items of marginal reproducibility are often encountered and this affects the quality of the microfiche and hardcopy reproductions ERIC makes available via the ERIC Document Reproduction Service (EDRS). EDRS is not responsible for the quality of the original document. Reproductions supplied by EDRS are the best that can be made from the original.

ED144860

ECONOMIC EDUCATION EXPERIENCES OF ENTERPRISING TEACHERS

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Joint Council on Economic Education
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND THE ERIC SYSTEM CONTRACTORS."

SP 010 239

A Report
Developed from the 1974-75 Entries in
The International Paper Company Foundation Awards Program for the Teaching of Economics

volume
13

© Copyright 1976 by the Joint Council on Economic Education

GEORGE G. DAWSON, *Editor*

ANTHONY F. SUGLIA, *Associate Editor*

Joint Council on Economic Education
1212 Avenue of the Americas, New York, NY 10036

FOREWORD

Volume 13 of Economic Education Experiences of Enterprising Teachers reflects all the characteristics of effective teaching that have distinguished the entries submitted to previous award programs plus a greater emphasis on interaction with community activities, needs and problems. As teachers gain confidence in their own knowledge of economics, they appear to be more willing and able to help students to sense and deal with the realities of economics in their immediate lives. This kind of teaching and learning draws upon the natural interests of students, taps the experiences and resources readily available, provides immediate satisfaction with the usefulness of economic understanding, and leads to a continuing respect for the study of economics.

The 14th Annual Awards Program is now underway and, once again, we invite teachers to submit entries. Application forms and assistance can be secured from Affiliated Councils and Centers for Economic Education throughout the nation or directly from the Joint Council. Examples of award-winning entries, in addition to those included in this volume, may be secured by writing to the IPCF Depository, Ohio University, Athens, Ohio.

On this occasion, the Joint Council takes pride in extending recognition and appreciation to the dedicated, competent individuals who serve as judges for the annual awards program: Dr. Ruth Ellsworth, Professor of Education, Wayne State University; Dr. Myron L. Joseph, Associate Dean, Graduate School of Industrial Administration, Carnegie-Mellon University; Dr. Laurence E. Leamer, Director, Center for Economic Education, State University of New York at Binghamton; Dr. Delmas F. Miller, Visiting Professor of Education, West Virginia University; Dr. Edward C. Prehn, Social Studies Consultant and former Chairman, Social Studies Department, Wagner High School, New York City; Dr. Rodney Tillman, Professor and Dean, School of Education, George Washington University; Dr. Henry H. Villard, Professor and former Chairman, Economics Department, The City University of New York; Mrs. Dorothy Cowles Wass, Elementary Education Consultant, Storrs, Connecticut.

Although this volume is essentially the same as its predecessors, there are two changes which should be noted. Support for the Awards Program and this publication is now provided by the International Paper Company Foundation. The other change is that Mr. Anthony F. Suglia, a recent addition to the Joint Council staff, edited the section of secondary school teaching experiences. We extend our appreciation to Ms. Sandra Kuntz, who has represented IPCF, and to the Foundation's Board of Trustees and we commend Dr. George G. Dawson and Mr. Suglia for their editorial work.

GEORGE L. FERSH, *Associate Director Joint Council on Economic Education* and *Coordinator, International Paper Company Foundation Awards Program for the Teaching of Economics*

EDITOR'S INTRODUCTION

After a decade of editing this publication, no one could blame me if I said "I'm tired of the whole thing." But such is not the case. Each year the projects entered in the Annual Awards Program represent new, creative and stimulating ideas, and I never fail to be amazed at the endless flow of imaginative and innovative strategies for teaching economics at all levels. The experience is an educational one for me, then, and it is a privilege to be able to make a small contribution by preparing the entries for a publication that will enable others to share this wealth. I was greatly pleased, therefore, when the Joint Council on Economic Education asked me to continue to edit this book even though I had resigned from my position with that organization. I am indebted to many people—to Dr. M. L. Frankel and Dr. George L. Fersh of the Joint Council for enabling me to remain active in the Awards Program, to the International Paper Company Foundation for sponsoring the project, and to Mr. Anthony F. Suglia of the Joint Council for editing Chapter Four and for assisting me in various ways. I hope that this book will continue to have the impact in the future that it has had in the past, and that teachers will be motivated to share their creative ideas with others through the medium of the Awards Program. For those planning to submit entries, a few words of advice may be in order.

Those who are contemplating submitting an entry to the Awards Program, and those who have submitted entries but failed to win, might profit from a generalized description of winning projects. It must be realized that the articles published in this book are usually condensed versions of the original reports, and that some of the material teachers submit cannot be depicted or even described easily. The characteristics of a prize-winner are as follows:

1. The project shows *originality*. It is more than a rehash of someone else's work, or at least it gives an entirely new "twist" to an idea developed in a previous year. Ideas that captured awards in years past tend to become "old hat." This does not mean that they are not good, but simply that the awards must go to those who come up with newer ideas.

2. The *class situation* is clearly described in the better reports. The judges want to know what ages, ability levels, or special characteristics apply. If the students represent a particular socioeconomic or ethnic group, the judges should know this.

3. *Scope and sequence* are set forth. The reader should be told at the very beginning whether the project describes a year-long or semester-long course, a six-week unit, a special project of three-weeks duration, a single lesson, or whatever. If it is less than a full course, the author should show how the project fits into the course being taught, and how it was related to material that preceded or followed it.

4. *Goals are listed* in specific terms. How can a reader judge a project unless he or she knows what specific understandings, facts, skills, habits, attitudes, or behavioral changes the teacher wished to impart?

5. *Motivational devices* are spelled out and *initiatory activities* are described. How did the teacher get the pupils interested in the subject to be taught? How did he or she then start the course, unit, lesson or project?

6. A step-by-step account of *teaching techniques* is given. It must be remembered that the basic purpose of the Awards Program is to help other teachers. These projects can serve others only if the author gives the details of the methods employed. It is not enough simply to say that a panel discussion was held—the reader should see exactly how the panel was set up, what preparations were made, how this activity fit into the total project, how it was evaluated, and so on. Where appropriate, sample lesson plans should be included, along with such items as assignment sheets, instruction sheets that might have been prepared for the students, and the like.

7. *Photographs* or *samples of student work* are included. Photographs of bulletin board arrangements, table displays, murals, and other items which cannot be shipped are welcome. It is not necessary to submit large posters or bulky objects if a photograph will suffice. Neither is it necessary to send in everything the students have done. One or two typical term papers, for instance, will do.

8. The *culmination* of the unit or project should be explained. Good teaching units have three basic parts: (1) initiatory and motivational activities; (2) developmental activities; and (3) culminating activities. The first help to get the pupils interested in the unit, project or lesson; the second develop the ideas, concepts, skills, understandings and attitudes listed in the goals; and the third bring the experience to a close by summarizing and applying that which was taught. Plays, assembly programs, displays, field trips, the making of films or filmstrips, simulations, and many other activities can be used to culminate a unit.

9. *Evaluation techniques* should always be included in the reports. These generally include tests of all types (short-answer, essay, and performance examinations), but can also include less formal things, such as self-evaluations by individuals, groups, or the class; written or oral evaluations by outsiders; and observations of pupil behavior. Samples of testing instruments ought to be submitted with the reports, along with the results.

10. Finally, attention to the *requirements* as set forth in the Awards Program application form, an *orderly arrangement* of the material, and simple *neatness* are appreciated.

The educator who attempts to include each of the 10 characteristics outlined above will have a good chance of winning. It should be noted, however, that the competition is keen, and that each year it becomes more difficult to win than it was the year before. Prospective entrants would be well advised to seek the comments and criticisms of others before submitting their projects. In particular, the teacher whose formal preparation in economics is minimal should consult an economist regarding the accuracy and appropriateness of the economics contained in the report. Many projects which represent an enormous amount of time and effort, and which contain superb ideas and materials for teaching, fail to capture an award simply because they contain little or no economics or because the economic content is inaccurate.

The Editor hopes that this brief summary of what constitutes a good project will be useful to educators. He deeply appreciates the work of those teachers

(nonwinners as well as winners) who are contributing so much to the elimination of economic ignorance in our society. It is hoped that more and more teachers will enter the Awards Program in the future, sharing their knowledge and experience with others for the good that this can do as well as for the possibility of financial rewards.

The Editor acknowledges with sincere thanks the cooperation of the teachers whose ideas appear in this volume. They have been most patient and understanding in permitting us to use their material and in agreeing to our many editorial revisions.

GEORGE G. DAWSON, *Acting Dean*
Empire State College

Contents

CHAPTER ONE—Primary Level: Grades K-3

Parents Show and Tell — Dorothy J. Yohe — 1
Economics in Kindergarten

Life in the Real World — Patti Carson, Janet Dellosa and Diane Greene — 4
Economics in Second Grade

Relating Economics to Children's Experiences — Agnes Lien — 8

A Social Studies Contract on Inflation — Maxine Lindfors — 14

Appendix to Chapter One—Good Ideas in Brief — 18

CHAPTER TWO—Intermediate Level: Grades 4-6

What's Happening to the Economic Life of our City? — Tressie Marchbanks — 23

Economics Through the Classroom Window — Polly M. Gray — 30

E is for Economics — Billie Bryan and Mary Ellen Ellis — 35

Teaching Business Economics to Sixth Graders Through Retailing — Beatrice Liebesman — 41

Appendix to Chapter Two—Good Ideas in Brief — 46

CHAPTER THREE—Junior High School Level: Grades 7-9

The Struggle for Existence — Mary Rose Martin, Sybil Noll, Sue Haka and Michael Koltun — 50
An Interdisciplinary Team Unit in Personal Economic Competence for Grade Seven

Community Simulation Game — Bruce H. Jasper — 55

Occupational Career Economics Edward W. Demmer 61

The Fad Factory Anita D. Miller 66
Economics for Educable Mentally Retarded Students

Appendix to Chapter Three—Good Ideas in Brief 69

CHAPTER FOUR—High School Level: Grades 10-12

Sports and the American Economy David Norflus 72
A Nongraded Minicourse for High School Students

The Economic Community Mrs. Shirleen S. Sisney 77
Activities for Grades Eleven and Twelve

Implementing the Jurisprudential Model in High School Economics Courses Robert E. Dettbarn 81

Toy Survey: A Community Project in Consumer Economics Mrs. Shelby Lee Sheehy 84

Appendix to Chapter Four—Good Ideas in Brief 87

CHAPTER FIVE—College Level

Teaching Economics Through Art History Virginia Lee Owen 90

Micro-Innovations for the Introductory Course Dennis J. Weidenaar 95

Do High Grades Buy Favorable Student Evaluations? John Palmer, Thomas Romer and Geoffrey Carliner 103

Systematic Economics John C. Schramm and John E. Maher 108

CHAPTER ONE

Parents Show and Tell

Economics in Kindergarten

Dorothy J. Yohe

Mary C. Howse Elementary School, West Chester, Pa.

Introduction

"Show and Tell" are enchanting words to the little kindergarten child, but at the Mary C. Howse Elementary School this magic has extended to parents as well. During the 1974-75 school year I introduced a completely new and exciting way to motivate my economics units of study–"Parents Show and Tell." Interest was keen, and the children learned easily and retained their knowledge because it was a "family affair" with much personal meaning to them. Flexibility of curriculum was an important factor, and after each parent's presentation I endeavored to develop a new unit of study based upon introductory economic concepts that could be related to the presentation.

One basic goal was to make the children aware of the many different occupations of parents and the concept of interdependence. Another was to have the children become involved with the parents' activities, and to instill in them a curiosity about what goes on outside the classroom and their immediate family environments. A third was to involve the parents in their children's kindergarten lives and to establish rapport among child, parent and teacher.

Procedures

There were 25 children in my morning class and 31 in my afternoon kindergarten session. I made tapes of each child greeting Mommy and Daddy and singing a song for them. Thus, when parents arrived for parent-teacher conferences they were completely surprised and highly excited to hear the taped greetings. After this I presented the idea of the "Parent Show and Tell" and suggested that the parents, in turn, prepare a surprise for the children. There was high enthusiasm, as we arranged for visits and kept our plans secret. What fun for a child when Daddy or Mommy would walk into the classroom to share ideas about hobbies, talents, interests or occupations with the child and his or her friends! The parents were happy to be part of our program, and their presentations were to be used to

motivate the children in the study of various economic topics. Some examples of exciting parent presentations follow.

Joey's Daddy works in the Post Office, and his presentation included a demonstration of his work. Joey modeled the uniform and helped to show how the mail bag is used. When a mail truck stopped at the school we all went outside to talk to the driver. The filmstrip and recording "90 Billion Raindrops" introduced the Postal Service as a vital community resource, showed how people all over America depend upon mail, and dramatized the challenges faced by postal workers. At one point I was asked to leave the room, while Joey's parents and the class wrote me a secret letter, which was then signed by all and mailed from the school. The course of the letter from the time it left our building until it was delivered to me was traced, and it was my turn to be surprised and excited when I received it!

Bruce's father brought a very large truck to school and allowed the children to pretend to drive it. We developed our transportation unit from this. (This unit even included a consideration of foreign trade.) Billy's Daddy is a motorcycle racer, and he brought his motorcycle to our parking lot. This was part of the transportation unit, and was used to initiate a study of safety. Mary Beth's father, a school principal, showed slides of his airplane trip to Colorado and California. This, of course, enabled us to include air travel in the transporation unit. We also compared our classes with those in Colorado and California.

Laurel's mother came to class dressed as an Indian. We learned to make Indian headbands, how to do an Indian dance, and how trade was important in Indian life. Several parents gave presentations on crafts, such as making hooked rugs (Jackie's mother), stuffed animals (Dawn's mother), life-sized Raggedy Ann and Raggedy Andy dolls (Mary Beth's mother), and clothespin butterflies (Roberta's mother). These activities led to a comparative study of home-made and machine-made goods, and introduced the children to the concept of mass production.

The children's love for animals was a powerful motivating force. John's father brought in a chicken and six baby chicks, which got us started on a unit on farming. Among the other animals brought by various parents were a turtle, guinea pigs, dogs and cats. Animals play an important role in our lives, and this gives rise to the need for specialists to help care for them. Dr. Harkins, a veterinarian, was one of our resource persons.

We are all consumers, and as such we have an impact on the economy. Even babies "count," and this was illustrated when one mother brought her infant son to the class. We learned about the needs for goods and services that babies have, and started on a unit on how our economy meets those needs. This was done through a play store, the making of baby items, and dramatizations. It was here that money was introduced as a medium of exchange.

A "Kindergarten Bakery" stemmed from one mother's hobby as a cake decorator. A unit on entertainment as a profession was developed after Marnie's Daddy had visited us with his guitar. We learned that music can be a consumer item, in that we may sing or play instruments just for fun; or it may be a producer activity, engaged in for a money income.

These are but a few of the learning activities related to parental occupations and hobbies. Pictures were taken of each presentation and were displayed on our bulletin board. All presentations were recorded on audiotape and played at our learning center or for interested visitors. During art lessons we made "Memory Books" for each parent. Creative story writing was another popular activity.

Evaluation

The effect of the units was indicated in many ways. Some of these are as follows.

- Children became highly motivated and maintained their interest throughout.
- There seemed to be greater retention of learnings than usual.
- Discipline problems were fewer than is normally the case.
- There was greater curiosity about the world, and how people, states and nations are interdependent.
- Some basic introductory economic concepts were learned in an enjoyable way.
- Excellent rapport between teacher and parents developed, and attendance at the parent-teacher organization meeting doubled.
- Parents reported that their children were showing greater interest in parental activities at home.
- The language arts, music, art, and other disciplines were easily correlated with the economics units.
- The teacher gained a deeper insight into the home life of each child and a better understanding of each.
- The units showed that the curriculum can be flexible and that instruction can be personalized.

In conclusion, "Parent Show and Tell" had worked like magic to turn my kindergarten into one huge family of many people, pets, hobbies and interests! It had made us curious about the world and what it is all about. It provided introductory economic concepts, enrichment learnings, social growth, and home-school unity. And there was an added feature—the happiness of parent, child and teacher.

Life in the Real World

Economics in Second Grade

Patti Carson, Janet Dellosa and Diane Greene

Betty Jane Elementary School, Akron, Ohio

Introduction

For several years the Akron Board of Education has been stressing economics in the classroom. Teachers have been encouraged to attend in-service programs and week-long workshops. Economics experts have been brought in to enrich the program, and these speakers have acquainted the teachers with many economics materials. The Career Education Program has included economics for the last five years, and this year three minicourses in economics were developed.

During one of the economics minicourses a discussion arose on the banking program which had been used by the Department of Elementary Education. The discussion centered on how the project could be improved. It was decided that since both the Elementary Curriculum and Career Education programs have helped teachers with economics, it would be valuable to have the two departments team together to work on the banking unit. A meeting was arranged to develop a savings program for elementary pupils and to familiarize them with the world of banking. We were asked to rewrite the program and to pilot it in a classroom before the end of the school year. One thing we wanted to do was expand the program to include more economic concepts. Since we had only 2½ months to accomplish our tasks, we began meeting in the evenings and on weekends to plan and develop materials. It was decided that the three of us would work together on the overall economics unit, and that Patti and Diane would develop the banking unit. Some of our specific goals were as follows:

- To give pupils an overview of the banking business.
- To show students how banking institutions relate to families, businesses, and the economy in general.
- To learn the importance of money and how money developed.
- To see how people are interdependent with one another and with the environment.
- To teach students to make wise economic choices.
- To create an awareness of the law of supply and demand and how we are affected by it.
- To learn how consumer choice affects the production and distribution of goods and services.
- To teach students about the circular flow in our economy.
- To help pupils to understand the concept of specialization.

Most of these goals (and others not listed) were to be taught through role playing

and simulations.* The children would learn about the law of supply and demand, for example, by seeing how it affected their own business as they tried to sell goods to other pupils.

The Project

It was our feeling that the more the students could *do*, the more they would learn. We did not simply give lectures to the class, but developed 43 individualized learning activities. Games, study sheets and group activities were planned. We began by sending a letter to the parents, explaining the unit and asking for their assistance. For example, parents were asked to work with their children in filling out job applications and weekly work contracts. To earn their "pay checks," the children would have to apply for jobs and engage in productive effort. We used filmstrips, transparencies and picture boards to introduce the class to basic economic concepts. After the basic concepts had been introduced in class we began inviting speakers who would provide more detail on those concepts.

Many interesting speakers appeared in the classroom. One pupil's grandmother talked about her life in the past and told how our economy has changed. A banker explained the difference between savings and loan associations and other banking institutions. He also helped the pupils to open savings accounts in the classroom bank. A loan officer told us what to look for when buying a home, showed us how the cost of home ownership includes interest, taxes and insurance, and provided instruction in applying for a bank loan. Another bank officer discussed the economics of buying and owning a car, explaining the various payments, insurance and interest charges. This was later supplemented by practical advice from a car salesman. After each speaker had left, the children would engage in follow-up activities to acquire an even better understanding of the presentations. That is, they would "buy" homes, cars, food, clothing and the like.

One of the popular activities was the store called "Dellosa's Delights," which sold items for consumption at lunch time. Brownies, popcorn, cookies, pudding and soft drinks were produced and sold. In the process, the pupils learned about production, distribution, advertising, specialization, supply, and demand. The sales revenues were used to finance future production and to start another store, "The Busy Bee Boutique."

Each Thursday the students turned in their worksheets, and on Fridays they received their "pay checks." They also got bills, however, and they would have to work on their budgets and make decisions on how to allocate their money incomes. They would pay their bills, make other purchases, and perhaps save some. Because this involved some mathematical concepts which are difficult for second graders, two volunteers from a bank came each Friday afternoon to help them. These volunteers would supervise the classroom bank tellers to make sure they were following the correct procedures, help them to make the correct change when necessary, and watch over the loan officers as they handled applications and approved or rejected loans. After the students had cashed their pay checks they could shop at the "Busy Bee Boutique" or deposit money in the "Betty Jane

*For a complete list of goals, activities, forms used, etc., and for greater details on the teaching strategies, see the original report. This is available from the Vernon R. Alden Library, Ohio University, Athens, Ohio. Only a brief summary is possible in this booklet.

Savings and Loan" or the "Your School State Bank." The stores and banks were staffed and operated by pupils, with jobs rotated each week so that all class members would have a chance to try different occupations.

Reading, mathematics, health, social studies and the language arts were included in the project, with economics as the focal point. An examination of randomly selected examples of pupil work would reveal individual and group activities relating to money and barter, the circular flow, making travel plans, checking accounts, time payments, ways of earning money, monthly and weekly budgets, consumer credit applications, credit cards, food expenditure plans, and many others. Among the subjects taught through the 43 individualized learning activities were: specialization, changing needs and wants, goods and services used in the community, writing checks, why different people consume different goods, comparative shopping, purchasing a car, interdependence, the work of bank tellers, and forms of money.

Conclusion and Evaluation

When we first started, we were planning only a simple unit on banking. Our first idea was to open our own bank and savings and loan association, complete with bank books, checks, deposit and withdrawal slips, loan applications, credit cards and money. It soon became evident, however, that this wasn't enough. To show the students how people use these services we would have to simulate adult life in our economy as closely as possible. This led to the planning of realistic experiences, whereby the children would learn that they would have to hold productive jobs in order to earn an income. One thing led to another, and for every form we constructed we found that three more were needed! Each evening we worked on new forms, discussed the events of the day's class sessions, planned for the next day's work, and prepared the lessons for the following day. Even though there were three of us working, we could hardly keep ahead of the class!

If it had not been for the pupils' reactions to what was going on, we would not have achieved our goals. They were so excited about each new activity that we worked even harder to prepare for the next one. Our husbands, children, parents and friends helped us, doing everything from locating useful pictures to feeding as we worked feverishly. The banks were generous in providing speakers, and some of the women from a bank invited us to a luncheon to explain our project. The director of the Center for Economic Education in Akron asked us to describe our work at various economics workshops. In spite of the already overwhelming demands on our time, we agreed to accept these invitations.

We constantly worried about how to evaluate second graders. Deciding against formal written tests, we analyzed each pupil's work during the individualized learning activities and games, and noted their comments and reactions. We also felt that parents' comments would shed light on the effectiveness of the project. Some specific questions were prepared for the parents, such as: "Has this economic unit increased your child's interest in school?" "Does your child discuss the project at home?" Some typical responses are as follows:

> "He seemed to enjoy this unit more than anything he has studied this year and really learned . . . what is so necessary in everyday life. I feel you really did a good job."

"When I first learned of Chrissy learning this, I felt it was a little hard for her to understand. But now I think it was a good idea."

"He now realizes how important it is to work, what a responsibility his parents have and he will have to have some day."

"Made her more responsible, and she really wanted to work for her money."

One of the things that pleased us most was the fact that we had involved so many people from the community. We felt that the more people who were involved, the more the pupils would learn. As the end of the school year began to close in on us, we worked even harder, but discovered that no matter how hard we worked we would never be able to do everything we wanted to do. The more we taught about our economic system the more ideas we conceived to teach economic concepts. Time and again we said: "Next year we'll start earlier!"

Our students showed a much greater awareness of how the economy operates, and they are now able to understand some of the family problems they so often hear about. This is not to suggest that they had no learning problems. Their budgets didn't always balance, but they did become better shoppers, learned to cooperate as they worked side-by-side in production, gained self-confidence, and became more independent. Thus, we would agree with the parent who wrote:

"I think this program should be continued for a longer time. After all, economics is the name of the game, and the children seem to be old enough to grasp the meaning of what you were trying to get across."

Relating Economics to Children's Experiences*

Agnes Lien

Foley Elementary School, Foley, Minnesota

Introduction

While attending an economic education workshop last summer it occurred to me that third graders know about the social functions of their families but know nothing about family economics. I began to think about developing a long-term project that would hold the interest of my third-grade pupils, yet provide a worthwhile learning experience. The major activities would include the viewing of films, going on field trips, hearing guest speakers, and producing and selling products. The major objectives included the following:

- To teach the children economic concepts related to family life.
- To study occupations and the requirements for entering them.
- To learn to observe, analyze and record factual data.
- To learn to apply economic concepts to real-life problems.
- To teach children the value of unity and cooperation in working together.
- To learn how money, credit and banking are used in production.
- To understand the functions of costs, prices and profits in business.

Activities I—A Study of Occupations

We began by viewing a series of three films—"Families Are Different and Alike," "Family Teamwork and You," and "Families and Jobs." This was followed by a discussion in which the children related the content of the films to their own families. For example, we talked about the services each member performs, interdependence, and the need for family unity. We made large charts showing the family members and their roles. Using magazines and catalogs, the children made booklets showing their wants. They then took these home and discussed their wants with their parents to find out which of the wants could be satisfied. When the booklets were again returned to the school and presented to the class, it became evident that such things as family size and income helped to determine the outcomes.

*This is a condensation of a 67-page report. The original can be obtained from the Vernon R. Alden Library, Ohio University, Athens, Ohio.

Studies were made of parents' occupations, and were related to income, education and family money management. For most, it was the first time they learned what their parents did, how they obtained their jobs, what sort of training was required, what kinds of working conditions they experienced, and so on. A questionnaire was prepared for the children to use in interviewing their parents. Each child wrote an article about mother or father after having completed the interviews, and these were shared with the class. We then decided to make an intensive study of occupations, using parents as resource people. The general procedure was to review the questionnaires, invite the parents or relatives to come and speak, set up a schedule, prepare questions, discuss the speaker's presentation, write articles about each speaker and send them to the local newspaper, and send a "thank you" note to the resource person. We also prepared graphs showing each job, training requirements, salary, and where employment possibilities existed.

One speaker (a grandparent) was an artist. He described his training (capital investment in education), the materials and capital equipment he had to buy, and what determined the price he placed on his works. He explained the market for selling art, and explained the impact of demand and supply on the price of works of art. A farmer then told us about the cost of operating a modern farm (a partnership, in this case), and how present economic conditions affect the costs of production and the prices of his output. We followed his visit by viewing the film "Dairy Farming Today," which shows how modern technology has raised farm productivity, and how capital and human resources are combined in running a farm.

The school system itself was a valuable resource laboratory. A school secretary explained the source of her income (school taxes) and why her salary is relatively low. The principal had to invest much more in his training, he explained, and had greater responsibilities. This helped to account for the disparity between his pay and the secretary's wage. The school nurse described her training and the various costs and benefits related to her work. We saw the film "School and Jobs – Lots of People Work Here," and made a chart showing all the occupations involved in running a school and the incomes related to each.

A secretary from a United States government agency told us not only about her own job but about the services performed by the agency. This helped to introduce the children to government's role in our economy. The next speaker represented private enterprise, for she was a supervisor in a manufacturing plant. She made us aware of the role of labor unions, and we discussed corporations, stockholders, business management, and various skilled and unskilled jobs in the plant. The film "People Who Work in Factories" was coordinated with this presentation. After a construction worker's visit (during which he actually built a portable chimney on the playground) we viewed the film "Building a House." This clearly shows the value of specialization and division of labor, the importance of capital investment, and the role of profit. A beautician represented another service-type industry, but again stressed the need for investment in schooling.

Foley is a small rural community, and one of the children's mother raises chickens. Her barn and equipment illustrated capital. Her presentation added a new dimension to our studies of the business scene, for she is under contract to a large firm which provides the feed and establishes production processes. Since she brought some of the chicks with her, she had no problem in maintaining class interest. A public service electrician working as a lineman added to our information of how wages are determined. The fact that his job not only required skill and training but is dangerous helped to account for the fairly high income he enjoyed.

Having nearly exhausted our supply of guest speakers, we decided to plan a series of field trips. In a visit to a general store we learned about the various forms of business enterprise (proprietorship, partnership, corporation), the capital needed to run a firm, the problems of management, and the types of jobs available. We even learned a little about elementary bookkeeping and accounting, and how such problems as shoplifting and inflation add to the price we pay for merchandise. As part of our review of this trip we viewed the film "People Who Work in Stores." Our next trip was to a bakery, which helped us to see that some of the same principles apply to a different kind of business firm.

The pupils had already been introduced to the fact that government plays a role in our economy, but now they learned much more about this through trips to the county court house and the Post Office. Two afternoons were spent in visiting various offices at the court house, showing that many different specializations are needed in operating a governmental institution, that incomes again vary in accordance with training and skills, and that general economic conditions (such as inflation) affect taxes and government expenditures. We learned a great deal about real estate market values and assessed values, and how tax revenues are divided among the state, township, city and village. Of course, this trip was also useful in teaching many facts and concepts about government. The visit to the Post Office reinforced some of these learnings.

A visit to a garage showed how a small business firm can relate to huge corporations in a major industry, for cars and parts must be obtained from large manufacturers. We were told about the factors affecting the demand for different types of vehicles, and how profit is determined in the sale of cars. At a food processing firm we saw how each step in the production process adds value to the final product and thus affects the retail price. Our trip to the local newspaper office provided a good example of interdependence, for the paper depends upon advertising from other businesses rather than subscriptions to cover its costs and earn a profit. This was also a good example of an industry in which a large investment in capital equipment is necessary in order to start the enterprise.

We missed no opportunity to include unexpected resource people in our project. When we learned that one boy's sister had been the only woman farrier (one who shoes horses) in Minnesota and was currently working in our area, we invited her to be a guest speaker. She had had to attend a vocational school to learn her trade, and she needed such capital equipment as a forge, anvil and pickup truck. She gave a demonstration of how to make a horseshoe and explained the factors that affected her annual income. The last speaker was a medical doctor who treats many of the pupils. The children understood why physicians receive high average incomes after he explained what is involved in medical training and how demand greatly exceeds supply.

To conclude our study of occupations I asked the students to write papers on "What I think I want to be when I grow up, and why." The results showed that some were already thinking about their future occupations, and that they were considering the realities of the costs of preparing for those jobs, and of some of the "trade-offs" involved. (For instance, a political position might pay well, but is less secure than others.)

Activities II—Running a Business

The children decided that the best way to learn about working together, how

to shop wisely, making a profit, the use of credit, and the role of banking was to go into business. The first idea was to manufacture products and sell them at Halloween, Christmas, Valentine's Day, Easter and Mother's Day. After considering various forms of business enterprise, they agreed to establish a corporation, with a board of directors, stockholders, and a set of rules and procedures. A Board of Directors, President and a Secretary were elected. Thus, the Craft-Makers Corporation was born. It was decided that recycled materials would be used, and that selling prices would be kept below $1.50. Soon the children were bringing in empty bottles and jars, scraps of yarn and felt, beads, cotton stuffing from old mattresses, wood scraps from a construction site, used plastic flowers and ribbons, old Christmas cards, wallpaper, cardboard tubes, spools, scraps of fake fur, coat hangers, broken crayons, plastic bottles, pine cones, old saucers, wire, spray can tops, old jewelry, etc.

Next we searched for ideas in craft books and magazines. Of course, we had to consider the cost of additional materials, the ability of third graders to do the work, the length of time it would take, and the price we could get for any suggested item. We planned to spend two or three periods a week to manufacture the goods. Money was needed, and I suggested that we obtain a loan from the bank. The children did not like the idea of paying interest, however, and proposed that we first open a charge account and take a loan only if we found ourselves unable to pay our bills. A set of "by-laws" was passed, requiring neatness, the avoidance of waste, careful and quiet work, comparative shopping, honesty on the part of salespersons, courtesy, and "no work – no pay!"

Our first product was "fall bouquets." We washed old beer bottles and glued yarn on them in Mexican designs. A college girl agreed to sell us spray-painted weeds for 25¢ a bunch, giving us 30 days in which to pay. The painted weeds were put into the bottles and tied with our recycled bows. They were very attractive, and we priced them at $1.00 each. A trial sale was held in the main hall of the school, and at the end of two days we had taken in $48.00. We paid our debt of $13.00 to the college girl, and now had some money capital to work with. It was decided that $10.00 would be placed in a petty cash fund and that the rest would be deposited in the bank. The trip to the bank to make the deposit was both fun and educational, for we learned about the functions of banks before opening a savings account that paid 5½% interest. Everyone was proud of the $25.00 deposit, and upon returning to class we reviewed our learnings by seeing the film "Fred Meets a Bank." Thereafter, whenever a deposit was to be made the three officers of the firm would make out a deposit slip, count the money, go to the bank, and bring back the bank book to the class.

We had another speaker tell us about division of labor in a factory, and the children decided to adopt specialization on a trial basis. It proved to be so successful in terms of improving the quality of our products and the speed with which they were completed that this production technique became the norm. Our next product was "critters" – stuffed bird-like ornaments with big feet and movable eyes. They were made with recycled fake fur, old mattress stuffing, cardboard, scraps of felt, and movable eyes. The only thing we had to buy was the eyes. A problem emerged when the eyes began to disappear either because of carelessness or dishonesty. We discussed this, noting that it was costing the firm money for replacements and reducing our profit margin. The eyes stopped disappearing. Using division of labor, we had specialists in tracing, cutting, sewing, stuffing, gluing and painting. We soon had 45 sets of "critters," at a total money cost of only $7.28. We

also produced 45 easels, which were covered with recycled burlap and decorated with yarn, seeds, wire and felt. Only the easel part, made from a drapery hanger, had to be purchased. Total cost was $2.25.

An open house was being held during American Education Week, so the children seized upon this opportunity to set up a stand in the main hall and sold goods to visiting parents. Two days later they rented space (for $1.00) from the sixth graders in order to sell their products at the sixth-graders' Halloween party. When this sale proved to be a failure we analyzed the situation and learned that there must be an effective demand (that is, a desire backed by the ability to pay) if one is to have a market for one's output. It was decided that we should reduce our prices and hold a special sale. The children went from room to room to advertise the sale, and within two days we had sold everything. It was time to record our progress, which we did by making a chart. Our cash intake had been $72.10, so we paid our bills, deposited $40.00 in the bank, and kept $30.00 in petty cash. Christmas was approaching, so we decided on producing another eight items. These included Christmas bottles, plaques, pin cushions, yarn dolls, apple-head ornaments, candles, a Santa Clause, and pine cone Christmas trees. All but 20¢ of the petty cash fund was used in buying supplies.

Things did not always go smoothly. A labor problem emerged when some children began to lose interest in their work, and when absenteeism because of illness or other reasons occurred. Those who were continuing to work hard were doing more than their fair share. A meeting was held to discuss the situation, and this resulted in the practice of keeping work records and rigorously enforcing the "No work–no pay" rule. Productivity increased. By the time of the sale we had manufactured a total of 178 items.

Posters were made to announce the sale, and we placed an "ad" in a local newspaper. We planned to sell our goods not only in the school but in the Senior Citizen Building uptown. Because of very bad weather, the Senior Citizen sale was a disappointment. Nevertheless, we had made $89.20, $5.00 of which had to be paid to the senior citizens for rent. To get rid of our remaining merchandise we reduced prices by 20 or 30 percent and held a special discount sale in the school. In two days we were completely sold out, having made an additional $35.65. Our bank balance rose to $174.96, and there was still $10 in petty cash! The pupils were elated.

In January, after a tour of a bakery, the children wanted to make rolls and coffee cake. A meeting was held to discuss strategy, and ways were found of getting the necessary ingredients at the lowest possible cost. Again, division of labor was practiced, resulting in a high-quality product that was enjoyed by the children and a number of guests. We then began to plan for a Valentine's Day sale, deciding to produce only one item–bread dough plaques. Scrap lumber would suffice for the background, but we had to spend nearly eight dollars on shellac, flour, stain, salt and tacks. Dough was molded into the shapes of fish, turtles and the like, then baked, cooled, coated with shellac, and glued to the wood. When we sold only 21 of our 33 plaques, the children met to discuss the reasons for the poor demand. Among the possible reasons put forth were the fact that some fathers were unemployed, some people were still paying Christmas bills, food and fuel were costing more, and that perhaps we produced an item that did not please the consumer.

The next attempt was an Easter sale. We purchased eight dozen eggs at 50¢ a dozen and colored them with dye. Once again bad weather took its toll, for a

snowstorm led to an early dismissal of classes. Only 22 eggs had been sold (at 10¢ each). One teacher then bought a dozen for 50¢, giving us a total of only $2.70. We had paid $5.00 for the eggs and $1.00 for the dye, so we suffered a loss of $2.30. Dividing the remaining eggs among the children helped to dispel some of the gloom, but another lesson had been learned. Just as in the real world of business, one cannot always expect to prosper, and one must be prepared to cope with unexpected emergencies.

Our final sale was planned for Mother's Day. Jewelry, in the form of pendants made with wood and beads, would be one product; candle holders made from old bottles decorated with melted wax crayons would be the other. An intensive advertising campaign was conducted, and in four days we had sold the 45 pendants and 36 candle holders. We had $70.60 in cash. After paying our bills we had $63.60 to be deposited in the bank. The account was earning interest, of course, and by the end of March our balance was $257.36.

Conclusion

I asked the children to write a letter to me, telling me what they planned to do with their earnings. There was a relationship between each child's output and his or her income. Total earnings ranged from a low of $5.45 for a girl who had not been in the school for the full academic year to $10.23. One popular suggestion was that some of the money be used for a party. A few planned to spend their money, but most intended to save it. Thus, when we closed our account at the bank all but three of the children returned their shares to their present individual accounts or opened accounts.

The goals had been achieved, not simply because the business had been a success but because the children learned to work together, to help one another, to be honest and unselfish, to produce efficiently, to use money and credit wisely, and to persevere in the face of adversity.

A Social Studies Contract on Inflation

Maxine Lindfors

Public School 220, Forest Hills, New York

Introduction

Inflation is not usually studied at the third-grade level, but I felt it was important enough to include in this year's social studies curriculum. Parents are feeling the pressures of inflation, and children should be aware of the reasons for the cutbacks in spending which are affecting them in their everyday lives. The children in my class were between eight and nine years of age, and were considered to be gifted. The mean reading level was 5.7, with some as high as 7.0. They came from families in the middle or upper-middle income bracket, with strong potential for upward mobility.

Devising a learning contract on the subject of inflation was the best method I knew to make the children aware of the state of the economy and of its significance for them. The school had no texts, library books, films, filmstrips, or units on inflation, nor did the Forest Hills branch of the Queensboro Public Library. The general goal was to make the children aware of the effects of economic issues on their lives, on their families, on the community, and on the world. Specifically, the pupils were to understand the meaning of inflation; to see its effects on themselves, their families, the community and the world; to learn to collect data in a neat and orderly manner and to share their learnings with their classmates; to make recommendations for possible remedies; and to formulate positive attitudes for coping with an economic problem. Twenty behavioral objectives were also prepared. A sampling follows:*

- You will be able to state one or more definitions of, and opinions about, inflation, and to discuss them.
- You will be able to draw bar graphs showing the effects of inflation and to discuss them.
- You will be able to test the value of the dollar and to discuss the results.
- You will be able to teach the concept of inflation to others by creating a learning package and sharing it.
- You will be able to compare food prices in three stores and to explain your findings.
- You will be able to write a poem and a story about the high cost of living and analyze the way in which inflation affects spending.

*Only a sample of the many behavioral objectives, activities and resources listed in the original report can be included here. For the complete report contact the Vernon R. Alden Library, Ohio University, Athens, Ohio.

Initiatory Activities

I introduced the subject of inflation by asking each child to tell me what presents he or she received (or hoped to receive) for his or her birthday. The responses were exuberant, and sometimes exaggerated. I then asked the children to tell me how they would feel if they received only a pair of socks. This brought instant gloom, disbelief and an attitude of "It couldn't happen to me." The following kinds of questions were raised during the ensuing discussion, with answers and comments being summarized on the chalkboard:

- Have you noticed that mommy and daddy are not buying as many things as they used to buy? (There was a 100 percent "yes" response.)
- Who can name one thing mommy doesn't buy any more?
- Who can name one thing daddy doesn't buy any more?
- Why do you think mommy and daddy do not spend money on these things now?

The class came to the conclusion that prices are too high and/or that there isn't enough money to pay for many things wanted. The next series of questions was not intended to produce answers but to be thought-provoking. These questions were: Why are prices so high? Why don't people have enough money? Can we make prices go down?

Of course, a general lull then occurred, and I told the pupils that New York and other cities all over the world were suffering from a problem called "inflation." I explained that when something is inflated it appears to become bigger, that inflation means that things cost more money, and that bigger or higher prices mean that the dollar will not buy as much as it used to buy. This forces mommy to make unpleasant choices about what to buy and which items to sacrifice. Thus, mommy must stop buying some things in order to pay the higher, inflated price of another item.

Developmental Activities

The children were told that they would use a social studies contract (which they were familiar with) to study the problem of inflation and to try to get answers to some of the questions. Further motivation was needed, however, and there was general excitement when I told them they all had to become "Super-Spies." They were asked to go shopping with mother and to watch the prices of one or more items she always buys. They were expected to shop at the same food store, collect the ticket stubs for the items being watched, and underline the price of the item on the ticket stub. Then they were to record the name of the item or items, the date purchased, and the store from which it was bought. All tickets would be clipped together, placed in an envelope, and stored in a safe place.

Groups were asked to meet with me for "brainstorming" sessions to suggest activities for getting information on inflation. They were told that no texts or other materials were readily available. Having had experience with contract learning, they were able to make many worthwhile suggestions for activities. Thus, when the contract was finished it was a joy to them to recognize their own input. The basic procedures are outlined below.

- Collecting grocery ticket stubs over a three-month period.
- Collecting articles about inflation from newspapers and magazines and discussing them in class.

- Distributing and reading the contract on inflation.
- Having in-depth discussions in small groups of each section of the contract so that purposes would be clear.
- Providing forty minutes of class time each day, plus home activities, to complete the contract work and share results. (The children were required to complete at least half of the twenty basic activities. They were free to choose the ones they wanted to do, and to set the order in which they would be done.)
- Recording, checking and grading the completed activities. (Checking was done by student checkers; grading was done by the teacher.)

The project utilized the visual, audio, tactile and kinesthetic concepts of teaching, recognizing that each child is an individual, with his or her own learning style, and with different preferences for activities requiring the use of the eyes, ears, hands or entire body.

Resources included library books, books from home, magazines, newspapers, radio and television programs, letters from government officials, and interviews. Among the noted people we relied upon for information were a member of Congress, the New York City Consumer Affairs Commissioner, New York's senators, members of the State legislature, the State governor, the mayor of New York City, the Saudi Information Ministry (on oil prices), the president of the United Federation of Teachers, and the economics minister of Argentina. Parents, grandparents, relatives, friends, neighbors and others in the community were also valuable sources of information. A questionnaire on inflation for use during interviews contained questions of the following type:

- What is inflation?
- Whom do you blame for inflation, and why?
- What can the average person do about inflation?
- How has inflation affected your buying power?
- What plans of yours had to be changed because of inflation?
- How will inflation affect the future?

The various activities were listed in the left-hand column of the unit, with alternative means of reporting to the class listed on the right. Many of the reporting techniques would not only serve to share a child's work with others, but would indicate the extent to which he or she understood the related contract activity. For example, *Activity No. 1(a)* required the pupil to ask family members or friends to define inflation and to make a list of the definitions. The child was then supposed to read the list to three friends to see if they understood inflation. A sample of other activities follows:

Activity No. 3(b): Make a bar graph showing the changes in grocery prices over a six-week period. (In the related reporting activity the pupil would show the graph to three friends and compare it with their graphs.)

Activity No. 7(a): Make a magazine about inflation, including articles, pictures, puzzles, quizzes, etc. (For reporting, the child would compare his or her magazine with the magazines of others.)

Activity No. 8(a): Take a trip to three supermarkets and compare the prices of six items, recording your findings on a chart. (For reporting, the pupil would show the chart to friends and explain it.)

Activity No. 10(a): Make a chart comparing the prices of five items, showing the prices during your parents' youth and the prices of the same items today.

Activity No. 10(b): Make a "time-cost" chart on a paper plate designed like a clock. Show how one item rose in price over the years. (Dates and prices would appear where the numbers 1 through 12 are normally placed.) (Note that 10(b) deals with the same concept as 10(a) but uses a somewhat different activity.)

Activity No. 12(a): Make believe there is no inflation. Mother gives you money to decorate your bedroom. Make a diorama showing your bedroom.

Activity No. 12(b): Inflation gets worse. Mother gives you the same amount of money as in 12(a). Make a diorama showing your bedroom. (Obviously, the diorama in 12(b) would contain fewer items, or items of poorer quality, than the diorama made for 12(a).)

Activity No. 14(a): Pretend you are a news reporter. Make a tape about a special report you are preparing on "Inflation Around the World." (For reporting, the tape would be played to the class and the pupil would respond to any questions they might have.)

Activity No. 15(a): Invent a new method of paying for goods. Write a story about how your method might be used to prevent inflation. (For reporting, the child would read the story to others and ask if they agree.)

Activity No. 16(a): Write a letter to relatives or friends in a foreign country or in another American city. Ask them how inflation affects them. (The letter and the replies would later be read to the class.)

Activity No. 16(b): Write letters to foreign consulates in New York City. Ask for the prices of everyday items such as food and clothing.

Activity No. 18(a): Write a poem about how "Runaway Inflation" could ruin the future.

We also prepared a glossary of over 120 terms, such as prices, profits, purchasing power, resources, strike, tax rebate, unions, wages, consumer, debt, goods, insurance, investments, and inflated. (The glossary also contained key terms used in the unit which are not economic terms, such as analyze, conjecture, consulate, and transcripts.)

Culminating Activities

In a unit of this type there are many culminating activities. Each time a child completes an activity and reports his or her learnings to others, culminating activities of a sort have occurred. For a terminal assessment, these children were capable of taking a multiple-choice examination. This even included a bar graph and asked for an interpretation of it. Some of the questions were:

(1) Inflation may be defined as:	People in debt
	The dollar buying less
	Blowing air
(5) Years ago the dollar bought:	More
	Less
	The same amount
(6) Inflation is affecting people:	Only here
	Here and in Florida
	All over the world

A "Check Sheet" form was provided for each child. In the first column the pupil listed the number of the contract activities he or she selected. In the next column the student recorded the date of completion for each activity. The third

column identified the child who checked the activities. In the fourth column the pupil wrote the names of the children with whom the activity had been shared. A grade for each activity was inserted in the fifth column. This form, of course, provided an on-going record of each pupil's progress.

Another form was the "Practice Sheet" for vocabulary development. Each pupil was instructed to: "Write the words which are difficult for you to use in a sentence. Listen to the vocabulary tape. Then try to use these words in sentences." The student would list the words in the left-hand column, and write sentences using those words in spaces to the right of each.

In conclusion, the children seemed quite excited about the contract and the entire subject of inflation. A tape recording was made of student comments about their reactions to the contract, the various activities, and the learning experience as a whole. I an sure it was a positive learning experience for everyone involved—the children, parents, neighbors, members of the community and myself. Inflation is a "now" problem and therefore I felt it had to be studied now. My class of gifted third graders had no difficulty with the contract, and perhaps it can be used with students in fourth, fifth and sixth grades as well.

APPENDIX TO CHAPTER 1

Good Ideas in Brief: Primary Level

GENEVA PARRISH of *Cavanaugh Elementary School, Fort Smith, Arkansas,* introduced her third graders to such concepts as scarcity, supply and demand, natural resources, and many others through a study of salt. The pupils found that there are 14,000 uses for salt, that it is a scarce commodity, and that opportunity costs are included in obtaining it. Children listed the things they would be willing to give up for salt, thus seeing the possible real costs of the essential substance. They studied the productive resources used in providing salt to the consumer—capital, labor and natural resources. The need for salt is great in war time, they discovered, and murals were made to illustrate the use of salt in the American Revolution and the Civil War. When the British captured American saltmines, for example, the price paid by Americans rose sharply. During the Civil War the Federal blockade helped to create a salt shortage and high prices in the South. The students learned how salt has been used as a medium of exchange (Caesar's troops were partially paid in salt—thus the term "salary") and how it enters into international trade. The salt taxes of old were used to introduce the topic of taxation and theories of fairness. In effect, an entire course in economics was taught through the study of this one commodity.

BETTY MUENCH of *Fair Park Primary School in Little Rock, Arkansas,* made career awareness a focal point in teaching economics to her second graders. The Joint Council's World-of-Work Economic Education program (WOWEE) provided the major themes. Scarcity, economic growth, productive resources, the market economy, and money and banking are but a few of the topics she included. The activities were too numerous to be described here, but they included the building of an Indian village, role-playing, viewing films and filmstrips, studying the energy crisis, taking field trips, arranging bulletin board displays, and reading poems and books. Parents and other resource persons visited the classroom to explain their work, thus helping the children to learn what is required for employment in general as well as for specific occupations. A bulletin board display of "career clusters" was arranged. Each cluster (such as "Health" or "Fine Arts") was written on a paper wheel. As one turned the wheel, one could see the various jobs available in that particular cluster. The pupils made booklets about their own skills and interests. They also made puppets and a puppet stage, and produced a show about economics. A play entitled "The History of Work in the U.S." was written and performed for parents.

Pupils at Fair Park Primary School in Little Rock, Arkansas, learn about the world of work by engaging in it.

Photo by Steve Keesee

LEONA McATEER of *First Ward Elementary School* in *Pine Bluff, Arkansas,* let her third graders make a study of the history of their school. This had

been suggested by a pupil, as part of Pine Bluff's Bicentennial Celebration. Numerous economic concepts were learned in the process, for the children raised questions about the cost of operating the school now and in the past, the source of tax revenues, and changes in teacher salaries. The class compiled lists of business and professional leaders who had attended the school, and invited many of them to serve as resource persons. They interviewed senior citizens to learn about changes that had taken place in the school and the town in general. Models were made of log cabins, and the capital items used by the earlier settlers were identified. They engaged in role-playing to see how barter had worked in the early years. When the children learned that the 1866 constitution provided education for whites only, they concluded that this was not only unfair to blacks but a waste of human resources. The pupils made candles and other goods, using the resources that had been available to the people of the 19th century. Each child became a "genealogist" and traced his or her family tree. They learned how new industries affected the town, and how the first school had been built to meet the needs of railroad workers. The resources used in constructing the first school were identified. The children made costumes and tried to simulate life in the First Ward School of 1891. They learned that many of the luxuries they enjoy today (such as playground equipment) were not available then because of scarce resources and lack of modern technology. The way in which specialization and division of labor were used in building and operating the school were depicted by the pupils in a mural. When it was learned that some parts of the state had lower levels of living than others, the causes were traced to poor soil, lack of skilled labor, and scarcity of capital resources. The effect of the Depression of the 1930's on the school and its pupils was studied. The impact of World War II on the economy was also noted. Coming up to modern times, the children did such things as computing the unit cost of a meal in the school cafeteria and estimating the opportunity cost of vandalism. (For example, a large poster was made depicting a broken window on the left and a football on the right. The message, of course, was that the real cost of breaking a school window was that one less football could be purchased.) The project culminated with a rummage sale. The class made enough money to buy $34 worth of games for a school game room.

MARTHA OLDHAM and SUZANNE SWEARINGEN of the *Raymond F. Orr Elementary School* in *Fort Smith, Arkansas,* have developed a kindergarten project called "The Farmer in Economics." To the tune of "The Farmer in the Dell," they wrote lyrics illustrating economic concepts, as in the following example:

The farmer goes to the bank,
The farmer goes to the bank,
To borrow money to buy a tractor,
The farmer goes to the bank.

Posters were made to illustrate each concept contained in the song. The list of concepts included needs, wants, goods, services, scarcity, productive resources, opportunity cost, specialization, interdependence, taxes, income, and the circular flow. The children learned that their food comes from farmers, who must incur costs and make choices in producing the food. They heard stories about farmers and farm families, illustrated with flannel-board figures. Posters were displayed to show the resources used in food production, and a play was performed to dramatize

the farmer's use of resources. The children learned about the various costs that enter into farm prices, and how farmers go to banks for capital. They enacted a farmer's visit to a bank and saw how and why interest is charged on loans. The class visited a fruit market and a tractor company. The children summarized their learnings about specialization, division of labor, and productive resources by helping to make rolls. A 15-item picture test was developed and used on a pretest and posttest basis. For example, one question was: "Where would the farmer go to borrow money?" The answer paper contained pictures of a bank and of a market, and the child would check one or the other. Another question was: "Which one is a capital resource?" For a correct response the child would check the picture of a shovel instead of the picture of rain falling on a plant. The mean score on the pretest was 18; on the posttest it was 28, for a gain of about 55 percent.

SHARON MORKIN of *Oakland School* in *Bloomington, Illinois,* has used puppets to dramatize economic concepts for second graders. The puppet shows, developed by Ms. Morkin, have been successful in helping children to learn about scarcity, consumption, production, specialization, division of labor, government's role in the economy, savings, and the circular flow of income.

FRANCES R. CALABRIA of the *Miller School* in *Old Bridge, New Jersey,* provided her kindergarten classes with some valuable experiences by having them raise money for Mother's Day by selling marigolds. They "surveyed the market" to see if there would be a demand for the marigolds in the school. The plants had to be transplanted from the large flats to pots. The children also decided to wrap the pots in aluminum foil and to decorate them with ribbons. Costs were estimated, so that a unit price could be established. They learned the importance of careful planning, such as deciding how much ribbon to order and what the precise measurement of each piece of foil should be. They saw that this, plus good work habits, helped to keep production costs down, enabling them to set a price that would be competitive with that charged in the stores. An assembly line was established for efficiency in potting the plants, applying the foil, and attaching the bows. Daily inventory was taken by placing pots in rows of five. Orders were taken in advance and filled on the day set for delivery. A "clearance sale" was held to get rid of the surplus plants. When profits proved to be lower than anticipated, the cause was traced to such things as inaccuracy in measurement and purchasing too much ribbon. In addition to learning some basic economic concepts, the children began to appreciate the value of money. For the first time, many realized that the money their parents have comes from hard work.

MARGARET F. BEST of *Lindon Elementary School, Lindon, Utah,* integrates economic concepts with all components of the second-grade curriculum throughout the school year. She uses many of the techniques reported by others in this booklet, such as field trips, resource speakers, and productive enterprises in the classroom. Some of her projects are unusual, however. At the beginning of the school year she plans a unit with a title such as "All About Me" or "Who Am I?" The pupils make booklets about themselves, enabling the teacher to become acquainted with them quickly. The questions which result in this "self-portrait"

With the help of resource persons who have lived abroad or visited other lands, Margaret Best's second graders in Lindon, Utah, study "Christmas Around the World." In these imaginary travels they learn something about the economies of the countries "visited."

include items designed to test the student's economic understanding, revealing concepts relating to work, spending, saving and career plans. The responses are used to lay the foundation for later studies of economics. In a popular unit called "Christmas Around the World," the children take vicarious trips with the help of resource persons who have lived in or visited foreign lands. During these "travels" they learn much about the economies of those countries. Even a study of beekeeping was related to economics, since a hive of bees resembles an industry and exemplifies division of labor and conservation of resources. In short, practically every classroom activity made use of economic principles.

CHAPTER TWO

What's Happening to the Economic Life of Our City?

Tressie Marchbanks

Sutton Elementary School, Fort Smith, Arkansas

Introduction

My sixth-grade class was made up of 32 youngsters, over a third of whom had serious learning problems. A few of the pupils were very gifted, however, and I relied heavily upon them to carry on this complex study of the Fort Smith economy. Why study the local economy? My economics unit for 1973-74 had revolved around career education, and during that experience I detected the children's lack of awareness of the changing economic life of our city. At the beginning of the 1974-75 school year I made it a point to talk about the changes that are occurring in Fort Smith and, although the students appeared to be very interested, this class was even less knowledgeable than the previous one. They were not lacking in enthusiasm, however, especially when they learned that we would take field trips, invite speakers, use many audiovisual aids and engage in a wide variety of class activities.

The overall goal was to acquaint the students with the changing economic life of Fort Smith. Among the more specific aims were to help children to understand the economic significance of the shift in population and how business follows the people to the suburbs, and how Fort Smith has become an industrial center with increasing demands for city services. It was hoped that the children would develop an awareness of the life cycle of a city, and see how today's new areas could easily become slums if the citizens fail to find a way to arrest the trends of inner city decay. Of course, an overriding goal was to help the students to understand some of the basic principles of economics that apply to urban and other problems. For example, the circular flow model would be learned not only in an abstract way but as it applies to Fort Smith and surrounding areas. I would be well rewarded for my labor if I could just get the children to adopt the economic way of thinking about the change process in our city and about the everyday problems of life.

The Plan of Study and Learning Activities

First, I made several trips to the City Hall, the Chamber of Commerce, and the offices of a local newspaper to inform myself about the latest economic developments in the city. Although these visits were made after school hours, several students accompanied me. Five class periods were then used to establish a general understanding of the project, which was to last five months. Five committees were formed, each of which was to concentrate on an area of study. These areas were:

1. Exodus to the East and South
2. The Changing Business Scene
3. A Growing Industrial Center
4. Increasing Demands for City Services
5. The Life Cycle of a City: Analysis and Evaluation

Although the whole class studied all areas in a systematic fashion, it was the duty of the committees to do intensive research on their assigned topics. The committee members were responsible for inviting resource people, writing for information, arranging for field studies, conducting interviews, and leading class activities. Each committee was to compile background information on its area of study and share this with the class. These introductory statements were then used as springboards for launching the classroom activities. Although each committee was free to divide its area into as many phases as desired, a four-step approach was mandated. These were as follows:

1. *What are the conditions?* A brief description of relevant existing conditions.
2. *Why do these conditions exist?* What brought about the conditions discovered in Step 1?
3. *How can we find the answers?* What kind of research and inquiry must we undertake? What does this reveal?
4. *What have we learned?* An attempt to consolidate and bring into focus the concepts learned in the previous steps.

Space does not permit a detailed description of the work of each committee or of the class as a whole,* but brief accounts may be of interest.

Committee 1—Exodus to the East and South

The committee's introductory statement provided facts about Fort Smith's growth, including data on highways and railroads, river navigation, transportation costs, natural resources in the area, availability of financial resources, population movements, central city blight, and the like. More details were provided about the city's conditions, as called for in Step 1. For Step 2, the children raised probing questions such as why people would want to move farther from their work and how they earn incomes large enough to afford the expensive homes in suburban residential areas. In searching for answers (Step 3), the committee members arranged field trips, interviewed resource people, and viewed the filmstrip "Working

*Greater detail can be found in the full report, available from the Vernon R. Alden Library, Ohio University, Athens, Ohio.

and Earning." They learned how developers obtain financing for projects, what productive resources are used, how the concept of supply and demand affects the housing industry, what factors induced people to move from the city, how population shifts are affecting the overall development of Fort Smith, what sacrifices must be made by the people to provide city services, and how both private and social capital are used. The *opportunity cost* concept was applied in considering what the citizens would have to give up in order to have the kind of city they wanted. A city administrator explained how such private developments as new houses may create a demand for additional public services, such as new sewer lines. A study was made of Fort Smith's labor force, with questions about the reasons for differences in incomes earned. In Step 4, the group provided the answers to many of the questions that had been raised earlier, noting how population shifts cause businesses to move also, how personal incomes affect the effective demand for goods and services, how skill and training (and, by implication, productivity) affect money incomes, how taxes play a vital role in the community's economic life, and so on. The same approach just outlined was also applied to a study of neighborhood deterioration. A tour of a deteriorating area provided some shocks for the children, as they saw impoverished senior citizens wandering about in despair, and ragged and neglected children on the streets. One boy related his observations to his family situation, writing: "I saw Harding Glass factory. My father worked there. He was laid off. They can't produce glass as cheaply as Belgium can sell it to us. I'm for competition and trade, but my Daddy has to work. I don't want to live in places like we saw today."

In response to the question "Why do people live in this area?" one resource person explained the "cycle of poverty." This led to a discussion of the basic problem of scarcity, the wants and needs of households, unemployment and its consequences, welfare and social security, the problems of the landlords, zoning regulations, and the conflict between those who believe that economic problems are best left to the marketplace and those who propose government intervention. We learned that there are no easy answers.

Committee 2—The Changing Business Scene

The committee noted the appearance of new large stores in the area, the heavy traffic accounted for by commercial vehicles of all kinds, and the great diversity in available goods and services. They interviewed the managers of large retail firms, asking how they establish prices, how profits are determined, how the firm is structured, what taxes must be paid, why some have moved. Back in the classroom, the students viewed the filmstrips "Economic Systems," "Freedom and Responsibility," and "Competition," and invited a businessman to visit and tell how these concepts related to his own firm. Pupils brought newspaper articles on the business life of the community to class, and these were read and discussed during economics "rap sessions." One discussion led to a heated debate over the tariff, with both sides of this controversial subject getting a thorough airing. This also created a need for goal clarification, so after a discussion of what they expected personally from our market system the class agreed on the following list.

1. Enough goods and services to meet our needs.
2. Freedom to choose our own jobs.
3. The right to join labor unions or other groups which will fight for our cause.

4. The right to make a profit or to get our share of what is produced.
5. Freedom to belong to the political party of our choice and to vote our convictions.

To strengthen understanding of the market economy and how it deals with the questions of what to produce, how to produce, and for whom to produce, we played a game called "How good a business person are you?" First each child chose some kind of business that produced goods or services demanded by sixth graders and wrote the choice on a piece of paper. The papers were collected and placed on my desk. Then I asked the students to write ten priority items on a slip of paper for which they intended to spend their money during the next three months. A committee tabulated the items and listed them in order of priority on the chalkboard. Clothing was ranked number one, so the pupils who had chosen to produce or sell clothes were rated as being shrewd business people. Since three children had chosen this business, it was clear that there would be some competition, and we discussed the implications of this. The economic concepts illustrated by our game were then related to the changes we had found in our local economy, such as the role of consumer demand in causing big department stores to move.

One guest speaker told us about jobs in our area, how the workers produce goods and services to satisfy wants and needs of people in Fort Smith, and what rights people should expect from their jobs. Another resource person explained the corporate form of business enterprise, which so intrigued the children that they set up a simulated stock club, "purchased" securities, and charted their gains and losses daily. Several pupils set up a miniature store in the classroom and showed the various productive resources involved, as well as costs and profits. We also made a study of land use in our area, including an examination of the factors affecting land prices and productivity. After a trip to the downtown area, the children were a bit depressed about what was happening to that section. This, plus a newspaper item about the report of the Downtown Task Force, motivated the class to dramatize the report by simulating a meeting of the Task Force. In preparing the script, they had to learn about urban redevelopment, property values, improvement district bonds, property taxes and the like. The City's Preservation and Development Coordinator then visited the class to explain the downtown redevelopment and renovation program.

Committee 3—A Growing Industrial Center

The committee's introductory statement provided information on such things as the number of new plants in the city, the jobs created by those plants, the capital investment involved, and the expansion and development of existing firms. They gave data on natural resources in our area, the labor market, and the availability of capital. In addition to simple facts, however, they considered such things as the factors creating a demand for Fort Smith's labor force, the sources of capital investment, and the motivations for entrepreneurship. Some of the less gifted students had difficulty understanding abstract concepts, so I compiled a bibliography of simple books such as Mary Elting's *Machines at Work* and Louise Floth's *The Story of Lumber*, had them use the *Our Working World* series by Lawrence Senesh, and related the concepts to their visits to stores and shopping malls.

A representative of a well-known manufacturing firm visited the class to

explain how a high-quality labor force in Fort Smith helped to attract his plant to the area, how the availability of natural resources played a role, and how his firm contributes to the local economy. In response to one pupil's question, he explained the implications of the recession for his firm and for the local economy in general. From other speakers and from printed material we learned about the way in which state and local taxes and fiscal policies affect business, how international economic conditions apply to us (the law of comparative advantage was explained), and how production costs are computed. On a tour of one local plant the children raised questions about how wages are established, the status of unions in the firm, the average capital investment per worker, how costs and profits are determined, the company's involvement in international trade, and the like. The executive serving as our host remarked that no other group of visitors had ever "asked such hard questions as you put to me!"

Drawings, posters and bulletin board displays were developed to illustrate these learnings. Using blocks, toys, cardboard and other materials, one group constructed a model of industry in Fort Smith, relating our industrial situation to such things as transportation, zoning regulations, and recreational facilities. A banker spoke to us and explained how banks help to provide capital for the city's industrial development. The relationship between saving and investment was a major topic, and the meaning of the term "capital formation" was learned. We made a large bulletin board display to show how each of the factors of production contributed toward Fort Smith's industrial development.

A study of specialization, division of labor, mass production, and related subjects led us to a consideration of the growth of big business and monopoly power. So, we studied such laws as the Interstate Commerce Act of 1887 and the Sherman Act of 1890, and took up the subject of government's role in the economy in general. Charts and murals listing important federal, state and local legislation affecting business were made. We covered labor legislation, such regulatory agencies as the Federal Communications Commission, state banking regulations, local health and safety measures, public utility controls, and many others.

Committee 4—Increasing Demands for City Services

City finance, public services, protection and other services of the local government were studied by this committee. They compiled figures on local taxes, made a map showing the nature and location of key services provided by the city, prepared a chart relating taxes to incomes, held a discussion on the sources of funds for capital improvements, drew pictures illustrating the opportunity costs involved, explained user fees, and prepared a pie graph of the city's 1974 budget. This group made a large poster containing basic questions such as "How are public facilities usually paid for?" and asked the rest of the class to respond to them. After the response of the class had been obtained, the group would indicate how they would have answered the question. The class responses tended to be correct but rather general, while the group's answers were more detailed and precise. A study of transportation included an all-class exercise in writing entitled "Where I Like to Go in Fort Smith and How I Get There." The result was the conclusion that no matter where one went or how one got there, the city had played an indispensable role. After all, the city provided the streets, and the group noted how the entire

economic life of the city depended upon those streets. The city's finance director spoke to the class about the condition of our streets, and gave many details on how they are built, maintained and financed. This group concluded its study of streets by having the students poll their parents, asking: "Are you willing to pay more taxes to have better streets in Fort Smith? Why or why not?" Parks, utilities, the airport, and public protection were other subjects of study. One group set up a role-playing situation in which several pupils represented interested citizens meeting with Fort Smith's city directors to discuss the parks, resulting in a clear picture of what costs are involved in creating and maintaining a park. Role-playing was also used in the study of utilities, as a "disgruntled patron" was depicted in a visit to the city manager demanding to know why his water bills were so high. Here again, many facts about the costs of operating a public facility were brought out. Six pupils made a trip to the airport, interviewed the manager, and presented a report to the entire class. In addition to gathering data on the airport's costs and revenues, they learned the importance of the airport to the economy of the city. The seven students studying protection had an exciting visit to the police station. They came away impressed with the work of the police and with an understanding of the overall economic benefits provided by efficient law enforcement. By now, role-playing had become one of the most popular activities, and in this case it took the form of a group of citizens holding a public meeting to protest the rising crime rate. Many facts and figures emerged from this, including the economic costs of crime in our city. The data on crime were presented in the form of an imaginary letter from the police chief to the editor of a local newspaper. Another role-playing situation was used to probe into the economics of fire prevention. Among other things, this skit brought out the fact that inflation is making it more expensive to have adequate fire-fighting facilities.

Committee 5—The Life Cycle of a City

The group's introductory report briefly traced the way in which a city is born, grows, develops, begins to deteriorate, and must be renovated. In seeking the reasons for the decay of our downtown area, they raised the question: "Are we demanding more services than we are willing to pay for?" They divided the class into groups. Group A was to answer the question: "What makes a good city?" Group B would then answer the question: "How does Fort Smith rate?" Both were to draw heavily from the materials gathered during the previous weeks of this study. Many films and filmstrips on cities were viewed as well. Among the economic factors selected by Group A were good wages and salaries, and availability of good jobs, trade, and capital. Group B gave Fort Smith good ratings on most of the economic criteria, but found that our per capita income is below the national average. Specific statistical data rather than subjective impressions were stressed. The city was also rated in terms of the quality of the labor force, transportation, standard of living, industrial base, land use, and the government's economic performance. As one means of ascertaining how much the class had learned from this activity I had the students write papers on "The Kind of City I Want for My Home." This led to further analyses of how Fort Smith measures up, with a subsequent paper on "How Fort Smith Can Solve the Downtown Problem." These projects also served to summarize the work of the entire unit.

Evaluation

Of course, evaluation went on throughout the unit—classroom participation, questions raised during field trips, and written work all provided evidence of the extent to which the economic concepts were being learned. In all my years of teaching I had not tried anything as sophisticated and complex as this study of our city. Based upon student participation and test results, I believe I achieved some measure of success in showing the children how economic forces are at work in the life of a city.

The Joint Council's Test of Elementary Economics was administered on a pretest and posttest basis. The median score on the pretest was only 9 out of a possible 40, with the scores ranging from a low of 3 to a high of 20. The median score on the posttest, however, was an impressive 28, with individual scores ranging from a low of 15 to a high of 38.

In addition to this, a 60-point teacher-made test was used on a posttest only basis. This instrument was designed to test understanding of basic economic concepts as they relate to Fort Smith. Some of the items were fact questions, such as—

7. Self-liquidating revenue bonds are paid off with:

(x) user fees; ( ) public donations; ( ) taxes levied on property owners

Others dealt with cause and effect, as in an item asking for an explanation of the movement of stores from downtown Fort Smith to shopping centers. Relationships between economic concepts were also the subjects of such items as the following—

10. Interdependence creates a need for:

(x) trade; ( ) economic freedom; ( ) private ownership.

The results were phenomenal. The median was 51, with a low score of 25 and a high of 60.

We also used oral and written quizzes which the children helped to prepare. Student reaction was highly positive throughout, and at the end of the unit one of my slow learners commented: "I've learned more than I ever learned in my whole life! It was so much fun!"

Economics Through the Classroom Window

Polly M. Gray

Washington Intermediate School, Little Rock, Arkansas

Introduction and Goals

A "semidepartmentalized" organization is used in our school. The language arts and mathematics are taught in the mornings, with pupils grouped according to ability. In the afternoon, each teacher specializes in a different subject such as science or social studies. The pupils meet in homeroom classes, and are grouped heterogeneously. My economics project involved three fifth-grade classes, for a total of about 60 students of varying abilities.

During the past year, a recreation center has been under construction near the school—in full view of my classroom windows. The center was designed to serve people living in the area as well as providing a building for the school's physical education program. Because of its direct relationship to the school, and a lively interest on the part of the children, I decided to make this construction project the background for teaching basic economics. Each day we could watch it grow, and thus what might have been a troublesome distraction became a valuable teaching tool.

The goals were to acquire an understanding of some basic economic principles and how they affect our daily lives, and to develop the ability to think analytically about economic problems. More specifically, our goal was to understand the concepts of scarcity; opportunity cost; comparative advantage; the market system; factors of production; division of labor; money, credit and banking; the role of government; public expenditure and income; and economic growth.

Activities

While attending an economic education workshop in the summer of 1974 I acquired many ideas, along with an eagerness to join the ever-increasing ranks of teachers who realize the importance of economics in the curriculum. To prepare for the particular unit I planned to teach, I met with the director of Model Cities in Little Rock, and taped our discussion of the construction of the recreation center. The tape was to be used when introducing the unit to the pupils, and as a primary source throughout.

To arouse interest in the unit, I put a "mystery word" up in the room, and gave the pupils a few days to find out what it meant. The word was "jawboning." They were also to bring in newspaper articles or cartoons using the word. This assignment really stimulated the children, and by the time the assignment was due they were very eager to share what they—*and* their parents—had learned about jawboning. A lengthy discussion about inflation evolved from this activity and led

to the construction of a bulletin board display on the upcoming Economic Summit Conference. We listed the goals of the conference and discussed its purpose. Thus, the students became aware of economic conditions in the United States as a whole before beginning the study that would focus on the recreation center. They were starting to think analytically, and to use the problem-solving approach. A problem-solving chart was put up in the room so that we could refer to it all year.

To introduce "Economics Through the Classroom Window" I played parts of the tape of my interview with the Model Cities director. We then discussed the reasons for building the recreation center and how it would affect the students. They became very excited about the prospect of watching the growth of the center and of having a "front row seat." So, we immediately began to organize our study and to decide what each student would do.

Many of the students wanted to become photographers or reporters, so we set up a special interviewing committee and had people submit written applications telling why they considered themselves qualified. Two cameras were available—one for slides and one for color prints. A permanent chart was put up in the room to display the pictures of the progress of the center. Pictures were taken once a week, and only the best were accepted for display. Our reporters went to the construction site and met with the foreman. They set up a regular weekly appointment schedule to interview him about the project. They were to ask questions formulated by the entire class.

Notebooks were kept to record all activities related to the unit, and after each visit with the foreman we would discuss the things that had been learned. For example, the construction site provided excellent examples of the factors of production—natural resources, labor and capital. Technology and specialization were always topics of discussion. In late September the Model Cities director spoke to the class, showed a film on Model Cities, gave us a blueprint showing future development around the school, and displayed a cardboard model of the new recreation center.

Before long we had collected so many economics materials that we could set up an economics center in our room. Weekly news magazines were used, and students received extra credit for newspaper articles, magazine items or posters brought to class. Indeed, student participation became so extensive that we had to set aside time each day for sharing current events materials. Sets of study questions were distributed, which the pupils were required to answer on paper, working in groups of about three people. Filmstrips on economic topics were shown, and an economics vocabulary chart was developed. The chart was kept in front of the room for ready reference, and I could see economic terms appearing in the daily vocabulary and writings of the children. As our unit really began to "jell," we felt the need for a song related to our studies. So, students working alone or in groups quickly composed some songs. Later, these would be shared with parents during our final program.

During the Economic Summit Conference of September 27-28, we kept our television set on all afternoon. The students were really fascinated, and when President Ford stated that he would soon announce a plan to fight inflation they all began to try to project what he might do. After the plan was revealed, the children entered it into their notebooks.

As news of our study began to spread, we received a call from the editor of the Model Cities newsletter, the *Voice*. The class readily granted his request for a visit, and he spent an entire afternoon with us in early October. He viewed our slides and

listened to our song and conversations. Fascinated by the extent of the children's economic knowledge, he published an article about us. His visit also inspired the class to want to learn more about Model Cities programs throughout the nation. Thus, material from Model Cities in Washington was added to our economics center. One of the most important outcomes of the study of Model Cities was that the students learned about government's role in the economy, how taxes are used, and how all three levels of government are involved.

Our next guest was a representative from a bank. She explained how banks help to finance construction projects, and gave the students a better understanding of the circular flow. One of the slower students was so enthralled by this that she submitted the best drawing of the circular flow concept. We also did research on various types of business organization. Each student selected a particular business in Little Rock, found out what type of firm it was, and drew a picture of that establishment for a hall display. Entrepreneurs were interviewed, not only to find out about the nature of their businesses but to learn how they were affected by the problem of inflation. The results of the interviews were recorded in booklets.

In January of 1975 the State legislature was convening, and the newspapers were full of items about its activities. Student interest was high, and I capitalized on this by dealing with the important economic role performed by our legislators. A field trip to the Capitol was arranged, and there we met with a member of the Arkansas legislature. He gave the pupils brochures that had been prepared especially for them, and posed with the group for a photograph on the Capitol steps. We sat in the galleries and observed the procedures of the House and Senate. As we were returning on the bus, I realized the value of the trip as I overheard one student say, "I'm going to make sure I always vote when I'm an adult. I'm going to get good representatives in there to pass those bills that will help stop this inflation." Later, the legislator who had been our host at the Capitol visited the class and spent an hour answering pupil questions about what the legislature was doing to help our economy. He went away amazed at what our fifth graders knew about economics.

In February, we toured a plant that manufactures pumps and water systems, because the students wanted another view of division of labor in action. We observed specialization at its best when we saw an assembly line putting the pumps together. The president of the plant met with the students and gave them pamphlets about the firm's history. These helped to bring about a better understanding of our market system. For example, the pamphlet explained how market demand had helped to determine the location of the facilities. The pupils asked the president how the current state of the economy was affecting his business, and became concerned about the fact that a reduction in plant operations would mean that some employees would have to get by with less income.

It was also in February that one student brought in an article saying that Senator Dale Bumpers, our former governor, had been appointed to a special committee to develop energy and economic programs. He wrote Senator Bumpers, urging him to "work hard on this committee because our country needs some economic answers." Within two weeks the boy had received a reply from the Senator, and this was placed in the economics center for all to read.

Each of my classes was divided into five groups, consisting of four or five pupils each. These groups were challenged to pick an economic concept and to illustrate it as colorfully as possible on a huge sheet of bulletin board paper. Afterwards these would be displayed on the shades of our classroom windows. There was intense

competition among the groups and classes to see who could produce the best representation. There is an artist-in-residence in our school system, so we invited him to visit us and help with our plan to draw the recreation center. He not only helped the children with their art work, but gave us a beautiful painting of the center that he had done previously. We then had an intense discussion on what to do with the painting. We had been working with Project Aware, our human relations program, and we needed to become involved in doing something for someone. So, it was decided that we would have the painting framed and present it to the Model Cities office.

Next, we had to decide how the painting would be framed and—most important of all—how we would pay for it! First, the pupils did research to find all framing places in Little Rock and to compare costs. The list of places was unbelievable. After many phone calls they found that by far the most economical was a "do-it-yourself" framing shop. Once the cost had been determined, we had to raise the money. It was concluded that they should earn the money through such things as baby-sitting, mowing lawns, gathering pop bottles and running errands. A delegation was sent to the framing shop, where the owner became so enthused about our project that he helped to do the actual framing.

Culmination

Early in March we began to think about our culminating activities. The recreation center was scheduled to open on March 21. We requested and received permission to put on a program at the center on March 27 at 7 p.m. It was decided that for the first part of our program we would share our unit's activities with the audience, and that for the other part we would put on a play. But what play? The answer was only as far away as our economics center. Among the many pamphlets at the center was one entitled *Inflation Can Be Stopped*, published by the Joint Council on Economic Education in 1969. We formed a committee to write a play based upon this publication. By working during noon hours and play periods we had the script ready in only three days.

The play was entitled "Our Economy, the Wonderful Abundance Machine." Tryouts were held for each part. As for the presentation on our economics studies, each student would write his or her own speech and submit it to the class for approval. This proved to be successful, for each took pride in having written a part. The students showing slides, however, spoke extemporaneously. Every student was given some sort of responsibility for the program. Those who did not have speaking roles helped to handle props, create programs and the like. The assembly-line technique was used to produce the 125 programs needed. Students were put in charge of displaying the charts, posters, booklets, pictures and other materials developed during the unit. Indeed, preparation for the program seemed to bring out the best in everyone.

Excitement was at its highest as the date for presentation of the program approached. On the afternoon of March 27 we presented the program to six other fifth-grade classes, and their interest and applause proved to be stimulating. The public presentation was given at seven in the evening, with no major flaws. We received news coveraged in the *Voice*, and the compliments and appreciation of the Model Cities director for our program and for the painting. The painting now hangs in Little Rock city hall.

Polly Gray's fifth graders visit the Arkansas State Capitol to get a first-hand report from a member of the legislature, Mr. Robert Johnston, on how the legislature is coping with economic problems.

Evaluation

Although evaluation had occurred all year, I felt my best evaluation came during and after the preparations for the final program. The students clearly learned that contributions to the economy are not a one-way street—money and resources that we put into the economic stream also come back to us. The return in this case was very real to the pupils—their own recreation center. Formal evaluation was undertaken through use of the Test of Elementary Economics (T.E.E.) and my own teacher-made examinations. The T.E.E., which is available from the Joint Council on Economic Education, was administered on a pretest and posttest basis. The number of errors on this 40-item standardized test ranged from 15 to 34 on the pretest, but only from 5 to 19 on the posttest.

Another indication of success was that I was asked to describe my technique at an economic education conference for school curriculum leaders in Little Rock. I received a letter of commendation from my supervisor. At this time I was also responsible for teaching language arts, and it was interesting to see how many of the students in the language arts classes absorbed some of the economics material which they could see displayed in the classroom. Economics terms were used in these classes, and parents reported that the pupils were reading adult-level news publications and discussing the nation's economic conditions. Indeed, our study of economics was affecting children who were not even in my classes! Our entire school became "economically aware." Letters of commendation were received from a parent, a fellow teacher and the principal, but the greatest reward was the feeling that I accomplished my aim—my pupils were becoming more effective citizens and participants in our free society.

E is for Economics

Billie Bryan and Mary Ellen Ellis

Eastlawn Elementary School, Burlington, North Carolina

Introduction

This unit was designed to meet the specific needs of the 60 fifth graders under our instruction. The impetus for this project was the seriousness of local and national economic problems such as unemployment, inflation, and recession.

Burlington is a small industrial town, and our local mills and other firms have been seriously affected by current economic conditions. Many of our students were directly feeling the impact of the recession, for they had less spending money, lunch money and money for new clothes. Although they were aware of the effects of the business downturn, they did not understand why it had happened. We thus felt the need to develop simulation experiences which could give these children a better understanding of what was happening to them, to their parents and to their neighbors.

The goal was to bring about an understanding of inflation, recession and unemployment, and of the basic economic concepts related to these problems. The unit was planned in such a way that language arts, mathematics, art, health and social studies would be incorporated, as well as basic economics. It was to be completed in eight one-hour periods, with the two teachers working as a team. Some of the activities would involve all 60 students at the same time; sometimes the pupils would be divided into groups of 30; and on other occasions they would work in small committees.

Activities in General

Although we planned a variety of activities, the simulations were the heart of the unit. First the student had to be introduced to economics, however, and this began with a class discussion of such questions as the following:

- What is the economy?
- What do we mean by inflation?
- What do we mean by recession?
- How does the present economic situation affect you?

This was followed by the presentation of a skit, "Our Sick Economy," which the teachers had written. Pupils played the roles of Mr. Economy (the patient), Nurse Better, and Doctor Gerald Ford. When the patient informs the nurse that his symptoms consist of a "staggering rate of inflation," and "millions of people out of jobs," the nurse agrees that he must see the doctor. Mr. Economy complains to Dr. Ford that the cost of living is the highest in years, that prices are outrunning salaries, that people living on fixed incomes (such as senior citizens) are being hit hard by inflation; and that the unemployment rate in the county is over 11 percent. Dr. Ford nervously paces the floor, mumbling: "Let's see. Is it starve a recession, feed an inflation? Or . . ." The doctor goes to the cabinet marked "Cures" and tries to decide which medicine to use. Finally, he decides to prescribe public jobs to put people back to work, to ask the Federal Reserve to loosen the money supply, and to cut taxes. He warns the patient, however, that recovery may be slow. The patient decides to try the cures and come back in a month to report any progress.

The skit aroused pupil interest, but the next activity really plunged the youngsters into the real world. They were asked to interview adults in the community to discover their feelings about the local economic situation. Their written reports were then put in a notebook and placed in the reading center where all students would have access to it. Having suggested through the skit that money had something to do with the economic situation, we then felt that the class needed to understand some of the basic principles relating to money and its functions. We used the filmstrip "History of Money," followed by a discussion of our current money supply, the forms money can take, and the importance of credit. The

students engaged in role-playing to illustrate the credit cycle and wrote skits showing how credit works. Charts were made to depict various types of consumer credit, and sample credit applications were filled out.

Learning centers were set up during the first week of the unit, and games, filmstrips and other activities provided additional experience in buying, selling and trading. Language arts lessons included creative writing on economic subjects, writing original commercials, and studying business letters and current events. Math lessons involved dollars and cents, percentages, graphs and problem-solving exercises using money. An activity in health consisted of a contract assignment in which students planned a nutritious menu and then priced grocery items included in the selected menu. Several art projects were coordinated with economics. In the "Then and Now" project the students selected items and did research to compare the current cost with costs in the past. Then they illustrated their findings. Another art project dealt with careers, and each pupil drew a picture of some type of worker. Collages were made, using play money and other materials.

Simulations

Simulation activities were designed to allow students to experience situations relating to inflation, unemployment, budgeting, paying bills and managing income. We attempted to make the simulations as real as possible, while still limiting the work to basic concepts and skills that had been learned in earlier class sessions. Thirty children participated in the simulation during each session. They were divided into three working groups representative of the major working groups in the Burlington population—ten Western Electric workers, ten construction workers, and ten textile workers. One in each group was designated foreman, and wore a special hat of a type identified with that group. Others wore identification badges telling which group they belonged to. All workers received monthly salaries equivalent to the average salary for their working group. Thus, Western Electric workers received $800, construction workers got $750, and textile employees were paid $600. Foremen received an additional $50 for their extra responsibilities, such as paying workers, organizing materials and supervising the work. Play money was used, and all payments were made in cash. (The children learned about checks in another activity.)

During the simulations the children received monthly wages, paid bills and kept records to show monthly expenditures and savings. The classroom was turned into a small town with cardboard store fronts for the Duke Power Company, North Carolina National Bank, Cameron Brown Realty Company, B & E Grocery, and the Employment Security Commission. The "buildings" were designed and built by the students, with some help from parents. The pupils would visit the various firms to make payments, and eventually some had to visit the Employment Security office to receive unemployment benefits. There were also medical expenses, and outlays for such things as clothes and recreation. Each office, of course, kept accounts. Every simulation was followed by a session in which the students were asked to explain what had happened and why. A form was prepared and duplicated, enabling them to assess their personal financial situation, noting which bills they had not been able to pay (if any), and what they planned to do about the problem of too little money.

Simulation I represented the first month of employment for the workers. They received their wages, but then had to pay bills for shelter, utilities, food, car

payments, clothing, recreation and medical care. All were able to pay their bills and to save money besides. Of course, the higher-paid workers and the foremen were able to save more than regular employees.

Simulation II was a bit more complex, for inflation was becoming a problem. Some payments remained the same (such as shelter and auto payments), but other prices rose. Furthermore, half the workers became unemployed. The children actually worried about who would lose their jobs, and the lower-paid textile workers showed the greatest concern over inflation. The pupils emulated adults in speculating on what would happen to them. The unemployed workers went to the Employment Security Commission where they applied for and received benefits. The payments varied depending upon the individual's prior wage rate, but all had to make decisions on what bills to pay first and what expenditures to cut. Some obtained food stamps or sought help from the Salvation Army. Some moved in with relatives to save on shelter payments. Others wrote letters to creditors, or visited them personally, to request postponement of payments. At the end of this simulation the employed workers were still saving money, while the unemployed were in debt.

Simulation III brought another round of inflation, and prices rose again. So that everyone would experience the same problems, the students who had been unemployed in Simulation II were now back on the job while the others found themselves out of work. Their apprehension was evident in the kinds of questions they asked. How long could unemployment last? Could foremen be laid off? What will happen if we can't pay our bills again? Students who had saved during Simulation II were now using those savings to get by; and students who were employed in Simulation III saved some of their wages to pay debts incurred during Simulation II. In the final analysis, only those pupils who had been willing to make sacrifices found themselves "in the black" at the end of Simulation III. Those who merely postponed payments found themselves in debt month after month. This led to fruitful discussions of alternatives to increasing and continuous indebtedness.

Additional Activities

Additional activities were rotated with the simulations described above. The students not participating in the simulations were divided into work groups. One group was assigned to an audiovisual center to view filmstrips on economics. The second met with a teacher to discuss the banking system and to receive instruction and practice in writing checks. Some students assisted the teacher in developing a vocabulary chart, which included banking terms, and each pupil was given a banking guidebook supplied by the North Carolina National Bank. These books provided practice in making deposits, writing checks and preparing bank statements. We also toured a local bank for a "behind the scenes" look at its activities and functions.

During some of the sessions a student dressed as a postman delivered tax refund checks to the pupils. A study of taxes was made at about the time the federal income tax returns were due. The children could spend the refunds as they pleased, and they were provided with catalogs. The only rule was that they had to pay by check and they could not overdraw their bank accounts. Those who had difficulty writing checks and keeping the proper records were sent to a learning center where a very large "blow up" of a properly written check and form were on display, and a filmstrip showing step-by-step procedures for writing checks could be viewed. Many

students decided not to spend all of their refund, but to be wise consumers and save some of the money.

The session on taxes included a filmstrip which explained the types of taxes, sources of tax revenues, procedures for levying taxes, and the uses to which tax funds are put.

Evaluation

From the outset, we agreed to narrow the field of economics so that the children would not feel overburdened. We chose to teach several economic concepts in depth, rather than to try to skim over a wide range of topics and principles. We also decided against the use of formal tests, for we were constantly measuring the pupils' acquisition of knowledge through their worksheets, class discussions, art work, and learning center assignments. The evaluation process would thus be on-going, but would not pose a threat, nor would it stifle interest. We wanted the unit to be special, and we told the children that *they* would do the evaluating. Thus, at the end of the unit each pupil wrote an evaluation, telling what he or she had learned, what had been enjoyable, and what he or she thought of the unit. Some sample comments (unedited) are as follows:

> "This economics unit has helped me understand how hard it is to be an adult. I learned how to pay all my bills. When your living in a time of inflation bills are might hard to pay."
>
> "Everyone felt the pressure of recession . . . We felt bad enough going through this. I'd hate to experience it in real life!"
>
> "I learned why my mother and father say no to some things I want them to buy."
>
> "This economics unit has . . . taught me more than a book could ever do."
>
> "After I went threw simulation I knew how my parents felt when they were layed off or couldn't pay their bills."
>
> "Now I know how people feel when they are unemployed and can't pay all of their bills. Now I don't ask my mother for as much of things because now I know how tuff times are."

In spite of the grammatical errors, the papers were honest, genuine, and full of mature insight. It is impossible really to measure knowledge completely, but we were able to make some judgments by our pupils' ability to talk about the subjects in such depth and with such sophistication. Most importantly, we could see that real change had occurred, and that the realism of the simulations had given the children a much better understanding of what their parents were experiencing. Some actually asked for a reduction in their allowances, started to save, and acquired wiser spending habits. We are convinced that the unit had a dramatic effect on our students' lives.

The unit also had a major effect on us. Little did we realize during the planning stages that community interest would mushroom to such an extent. The favorable reaction we received from community leaders and other educators was tremendous. About 75 people visited our classroom. Other teachers have started similar projects, we have been asked by the North Carolina Department of Public Instruction to

Through realistic simulations and bulletin board displays like the one pictured here, fifth graders in the Eastlawn Elementary School, Burlington, North Carolina, learned that inflation erodes purchasing power and makes bills hard to pay.

share our unit with others at the State Social Studies Conference, the Central Administration has requested that we develop a unit for the elementary schools of the city, and we have received many encouraging comments from business leaders. Several newspapers published articles about our project. An economics professor at Elon College wrote: "I learned a great deal from you two . . . that I can adapt to my own teaching." He further stated: "Your success with this economics unit verifies the fact that young children can learn some basic economic concepts if they are properly taught and they can have lots of fun doing it." The Vice President of a large bank wrote: "I hope my boys will have the opportunity to be exposed to such creative teaching!" We have also been asked to participate in workshops to advance economic education.

Finally, the unit was fun to teach, as well as being rewarding in its outcomes. The children called the project "The Big E," and the work of the unit was the highlight of their day. They increasingly spent their free time in economics activities and begged us to extend the unit. To us, this interest is what made the unit special.

Teaching Business Economics to Sixth Graders through Retailing

Beatrice Liebesman

Community School 232, Bronx, New York

Introduction

For many years, the social studies in the elementary schools has been confined to a curriculum "strait-jacket" which fitted the needs of very few and succeeded only in producing boredom for most. There has been little relevance between what occurs in the classroom and the world outside. In particular, the elementary schools have been remiss in the teaching of economic concepts.

For the past four years I have been teaching consumer education to my sixth graders. This has been rewarding both for the students and for me. Yet, about a year ago I began to have the nagging feeling that I had been omitting something. My goals were being met in the sense that the pupils became discriminating, critical and intelligent consumers, and they were sharing their knowledge with their parents. However, I started to realize that I had not been devoting sufficient time to the other side of the picture—business and its role in our society.

In order to bring about an understanding of the chain of distribution of goods from origin to the consumer, it is necessary to teach the important role performed by the retail establishment. It is easy to fall into the trap of having the business person set up as the "bad guy" representing the forces of evil, and the innocent consumer as the "good guy." The news is filled with items telling of big consumer "rip-offs." When we draw upon the children's own experiences and those of their families, we compile a huge list of injustices affecting people who can least afford it. This is not the total picture, however, and it is incumbent on the educators to round out the scene.

Activities

I have never been loath to experimenting with new techniques in the classroom. Thus, teaching remains fresh for me, and my enthusiasm is communicated to the class. A child learns best when we go from the concrete to the abstract, and the project I had in mind would begin by involving the pupil in his or her immediate environment. Having been an economics major in college, and having operated a successful retail establishment for ten years, my own life experience would be a valuable resource.

Most of the pupils in our school are black or Puerto Rican, and many are below grade level in reading ability. The building is a converted bowling alley. Needless to

say, teaching in the inner city has become increasingly difficult. But, if we as educators believe that "the impossible is only a bit more difficult," then the "impossible" simply becomes a greater challenge. So, during the summer of 1974 I developed a broad plan for teaching business economics, and submitted the plan to my supervisors. Fortunately, the administration of my school is extremely supportive of academic innovation. Learning is also enhanced when parental support is strong. Before introducing the plan to the students, therefore, I invited the parents to a meeting, and was delighted when a large number attended. I had heard parents state that they were not sending their children to school "to play store," and I wanted to make it clear that the basic areas of the curriculum would not be neglected.

Another goal was to point out career opportunities to the pupils at an early age. This does not mean that the child should choose his or her life work at this point, but that a sense of one's possible place in the adult world should begin to develop. Children must recognize the relationship between school preparation and the future.

A further objective was to open an avenue of communication between parent and child, and to have the child see how the parents fit into the labor picture. (Some parents were unemployed, but this provided an opportunity to discuss job attrition and retraining.) The parents were most encouraging and agreed to let the children consult with them about their work and shopping experiences. Each child who obtained information from parents or other sources was expected to share it with the class. The parents were also asked to be present at the culmination of our activity.

With the necessary preparations made, I was ready to present the plan to the class. Candidly, I told them that they were being involved in an educational experiment. They would have to think, learn new terms, and make objective observations and deductions. This was to be "grown-up stuff," and they would have to follow a rigid schedule to be ready to operate our store one week after the Thanksgiving holiday. I made it clear that I had faith in their ability—but were they ready to believe in themselves? It is impossible to express on paper the thrill of excitement that ran through class!

Teaching Basic Economic Concepts

In all lessons I tried to relate basic economic concepts to what we were doing. This was to be accomplished by doing and observing, for the most part, rather than by lecture. Some conventional techniques were necessary, however. The opening lesson dealt with the meaning of supply and demand. The following question was asked:

> "A man has twenty-five ball-point pens to sell. The pens are really great because they have a writing point on one end, and the other end is a water gun. The price is fifty cents. How many children would want to buy a pen?"

The answers varied from 50 to 100, and the pupils noted that the storekeeper would not have enough pens in stock. One child, however, pointed out that he did not have enough money to buy one, and other children then conceded that they were in the same situation. Thus we arrived at a working definition of *effective demand*—which is not simply the desire to have something, but the ability to pay

for it. We went on to learn that demand can change as a result of prosperity, inflation and depression, among other things.

Another question was as follows:

> "You are the head of your household, and each week you set aside money for the necessities. To which items would you give the first three places?"

Food, clothing and housing were listed, and then we discussed the items they would buy if they had money left over. These were luxury goods and services, so we categorized goods as being necessities or luxuries, and noted that in prosperous times there was less of a problem in selling the latter. Implicitly, the opportunity cost principle was being taught – given a limited income, the *real* cost of one type of item would be the fact that another type was being sacrificed.

In the next lesson the class was asked to make a list of things which would describe the type of store in which they preferred to shop. Surprisingly, their list indicated their concern for an attractive ("pretty") store, with a courteous staff and an attractive display of merchandise. They wanted the clerks to handle items with care, and not wrap the goods in haphazard fashion. Furthermore, they resented stores in which children were always treated as potential thieves.

This was followed by a discussion of the complications of running a store. We learned that theft is a big problem, and that the cost is passed along to the customer in the form of higher prices. When they asked about insurance to cover theft, I explained that some neighborhoods are so unsafe that businesses cannot obtain insurance policies. Next, the children visited stores and tried to estimate their expenses. They listed such things as rent, utilities, insurance, pilferage, salaries, advertising and taxes. The term "overhead" was introduced. Interest can also be an important cost, for business people sometimes have to borrow money from banks. This exercise brought the class a long way in their thinking. Previously, they had the naive notion that everything collected by the storekeeper is profit.

The next area of study was the store manager's problem of purchasing merchandise. The leading question was: "If you owned a shoe store how would you know which styles would be best to stock?" This made the class aware of the risks involved. How does the merchant know which sizes to order, and how many of each? Some of the pupils talked about this problem with store owners, and the class learned that the intelligent business person does research on styles and trends. We were able to relate this subject to previous lessons on gathering statistics and the use of averages. I stressed that trial and error was a costly way to answer the question of what to stock.

The lessons became more complex as we delved into the question of how some items can be sold "at cost," the factors entering into pricing and competition. We even discussed merchandise that cannot be reproduced, such as antiques. The criteria for good salesmanship were examined, the pupils listing such things as inspiring confidence, knowing what one is talking about, making a good appearance, understanding people, being helpful even to customers who do not buy, and making the consumer feel that he or she is "special." (Incidentally, the term "salesman" was replaced by "salesperson" at the insistence of the girls, who were developing strong feelings about equality and job stereotyping.)

After long and careful planning, we were ready to set up the store. A few manufacturers donated stock, such as plastic items and costume jewelry. (Although it might have been better to have the pupils try to raise money to buy merchandise,

the purpose of the project was to teach retailing, and there was too little time.) A place for storage of our goods had to be found, and we discovered an unused bathroom that served nicely. There was a need for a "catchy" name, we felt, and the pupils finally decided upon "The Leadershop." Although we tried to make the operation true to life, the children realized that it differed from a real store in that we did not have to pay rent, purchase utilities, pay salaries, and remain in business for a long period of time. (We would be in business only for two days and would be unable to evaluate seasonal changes.) Nevertheless, we tried to make prices reflect typical costs. Fears that we would lose money provided opportunities to discuss such terms as bankruptcy, assets and liabilities.

The next step was setting up job categories, which we did after deciding that our store would be the partnership form of business organization—with all 29 students as equal partners! The class elected a manager and assistant manager. It was a revelation to me to see how much insight children have into themselves and their classmates. I had been concerned that everyone would want to be a boss, and it was surprising to see that few wanted this responsibility. Many explained that they thought others were better qualified. It became clear that each had a vested interest in the enterprise, and thus they wanted the best person for the job. The pupils they elected were those I would have chosen.

The elected manager and her assistant were to interview others for such positions as salesperson, cashier, bookkeeper, stock clerk and advertising specialist. Although each person would have a specific job it was also agreed that everyone should be willing to assist in other areas, if needed. The interviews were held, and the jobs were assigned according to the individual's qualifications. For example, the cashier positions were given to pupils who were best in mathematics.

Pricing was a problem. Each item had to be examined, and students had to visit stores carrying comparable merchandise to get an idea of what the prices should be. Newspaper ads were also analyzed. We had to cover costs but not price ourselves out of the market. The children worked in groups, each group being responsible for coding and pricing certain merchandise. Among the goods for sale were plastic planters, costume jewelry, cutting and serving boards, and modular wine racks. Some of the pupils made lovely bags out of their old dungarees. After each item was priced it was listed in an inventory book and packaged. All items were examined for possible defects, and damaged goods were repaired or sold at reduced prices. They learned by experience that carelessness in handling merchandise could reduce our profits.

An advertising committee was responsible for decorating and wrapping, and seeing to it that the name "Leadershop" appeared on each package. They made signs to promote our business. Sales slips, receipts and other necessary forms were prepared.

Salespersons received special training. They had to be able to answer questions about the goods, keep the counters from becoming messy, and order new supplies from the stock clerks. They were taught not to "oversell" and not to become impatient. Courtesy and good speech were stressed. Role-playing situations were used to prepare for the actual experience. Everyone learned how to write a sales slip. The children showed great ingenuity in arranging attractive displays. Display tables were covered with fabric samples, cardboard was covered with bits of velvet, empty wine bottles were placed in the wine racks. They found that jewelry was more appealing if placed on an interesting background, such as styrofoam packing material, a picture frame, or a plastic egg.

The logistics of the operation seemed almost overwhelming at times. The standard curriculum had to be covered each day, so we were limited in terms of being able to move the regular furnishings. But the children went about their assigned tasks like professionals. They arranged and rearranged to achieve the most esthetic effects. Each group worked joyfully, and with no fights. Every child was busy, and delighted to be so. Everyone washed desks, swept and dusted.

When opening day arrived, everyone was in bright and early. The transformation that had taken place in the room was almost unbelievable. We could tell from the manner of the customers that they felt they were in a real store. They asked pertinent questions, which were answered with knowledge and assurance. As customers left they were asked to jot down their impressions. The sale continued for two days. On the second day several classes came to observe the operation, and it was clear that they would have loved to be a part of it.

Of course, there were unexpected events, but these can be used to advantage. One salesperson cried when another "stole" her customer by crossing over into "her territory." I agreed that this was frustrating but indicated that the same thing happens in the business world. At one point the sales manager became so carried away with her own importance that she began to issue orders instead of making dignified requests. We almost had a sit-down strike until she was made aware of the impact of her behavior. She made amends, and everyone learned a lesson about human values. At the close of the sale the "partners" were allowed to purchase whatever they wanted at a thirty percent discount. I've never seen children compute percentages so quickly!

Culmination

On the day after the closing of our "Leadershop" the accounting department tallied the sales slips and compared the total with the cash receipts. Then we worked up a final financial statement, discussing each item as we went along. A conference was held on what we should do with our profits. Among the suggestions were that we take a cross-country trip, distribute the money equally, and invest in a new business venture. It was finally decided that a contribution would be sent to a hospital and that the remainder might be used to pay for a graduation party.

This experiment in economics was a huge undertaking, but many things have resulted from it. Our consumer education project has become more meaningful. The children speak with surprising maturity about business conditions, and they are thinking about their future in the business world. They realize that knowledge is necessary for every role in our economic system. My pupils not only learned an academic subject—they learned about themselves. And I had the exhilirating experience of being a partner in something meaningful.

APPENDIX TO CHAPTER 2

Good Ideas in Brief: Intermediate Level

VIRGINIA TUSSEY of *Diggs Elementary School* in *Winston-Salem, North Carolina*, had her sixth-grade class write a book entitled *Economics: A Circle of Dependence*. The project was engendered by the fact that the teacher and the pupils were unable to locate suitable materials for teaching economics in a manner understandable to elementary school children. Five weeks were spent in studying basic economic terms and principles relating to consumers, producers, goods, services, wants, needs, supply, demand, efficiency in the use of resources, and economic systems. They also held an auction, created a table-top city, worked on an assembly line, engaged in comparative shopping, and simulated a barter economy. During the three weeks in which the book was written, students contributed portions in accordance with their interests and abilities. Some simply wrote definitions of economic terms; others gave a brief history of economics, described personal economic behaviors, explained international economic interdependence, or explained different economic systems. Language arts and mathematics lessons were used in writing the book as well as social studies. The pupils frequently worked in groups to produce a particular section or illustration. The project not only kept students interested, but greatly raised their knowledge of economics, for the mean score on a posttest was nearly double that achieved on the pretest. Most important, perhaps, is that they produced something useful in teaching economics to others.

ESTELLE W. MATTHIS of *Oakhurst Intermediate School* in *Little Rock, Arkansas*, developed a career awareness unit for her educable mentally retarded students. This well-organized project contains many of the popular activities teachers often use with such pupils. A company was established to produce and sell a product. The students had to elect officers, fill out real job application forms, prepare production flow charts, and maintain a quality control system. One of the unusual features, however, was that the youngsters were subjected to a daily evaluation scheme. On a mimeographed form the teacher noted the number of hours worked, the quality of the individual's work, how much progress the student was making, the extent to which he or she was cooperative on the job, the kinds of difficulties being experienced, recommendations for improving performance, and so on. Parents were also asked to assess their children's learning. As a result of high student interest in the project and the constant feedback, there was a marked improvement in attendance, a 50 percent drop in tardiness, a decline in behavior problems, and a rise in scores on formal tests.

CORENE F. CASSELLE of the *C. V. T. Gilbert Sixth Grade Center, Las Vegas, Nevada*, developed a comic book entitled "Introducing Sage and Novo" to teach economics to the sixth graders in her classes. The book features the adventures of two boys named Sage and Novo. During their conversations, many economic

concepts are defined and explained. Among these are money, opportunity cost, the job market, economic growth, wages, free enterprise, and regional economics. For example, it is pointed out that one of the opportunity costs of living in a warm climate is the sacrifice of the opportunity to ski in snow. Career awareness was an important part of Ms. Casselle's project, with the emphasis upon careers peculiar to the Southwest. The pages of the book, which are in bright colors and protected by lamination, were placed on the chalkboard as if they were posters. This made it possible to refer back to the key concepts whenever review was needed. This practice tended to expedite the learning process because the children wanted to see what Sage and Novo would be doing next.

JOE MUNDT of the *Beatty Elementary School* in *Beatty, Nevada*, has found that her third and fourth-grade pupils can learn some important basic economic concepts through a study of the state of Nevada. An interdisciplinary approach is used in the study of local and state issues. Field trips, the making of posters, and producing short plays are some of the activities which help the children to learn such concepts as scarcity and opportunity cost.

WILLIAM E. PHILLIPS of *Memorial Park Elementary School, Euclid, Ohio*, developed an economics simulation called "Let's Rebuild Lake Shore Village" for use with his sixth graders. This was related to a current issue in the community regarding the development of an actual land area. First, the children played a commercially produced game to get experience in this technique. Next they visited the area and took pictures. They studied the history of the area with help from the League of Women Voters and the library's microfilm collection of old newspapers. A map of the area was drawn, and the pupils formed interest groups representing the City Council, unemployed workers, and people suggesting different uses of the area. Among the various suggested uses were that it be developed as a golf course, a medical center, a drive-in theater, a shopping complex, a cultural center, a horse-riding stable, a junior high school, a residential section of single family houses, an area of highh-rise apartments, or a place for townhouse condominiums. The class determined playing procedures and rules. Each group did research relating to its area of interest. For example, the group promoting the riding stables had to determine the amount of land that would be needed, how much the land would cost, the price of the horses, what buildings would be required, what kind and how many workers to employ, what other businesses might develop if the stables were built, and so on. The groups interviewed resource people (such as the mayor) in the community, constructed models of buildings, estimated the effects of their proposed projects on the tax base, surveyed the potential demand for the goods or services to be provided, investigated relevant legislation, prepared charts illustrating the economic effects of their proposed projects, and gave oral presentations. The economic topics included in the simulation were taxation, opportunity cost, wants and needs, inflation, the circular flow, demand, specialization, capital, scarcity, income, private enterprise, rent, the business cycle, price, interest, social costs, wages and productivity. One student even attended a meeting of the Euclid City Council. A local newspaper devoted considerable space to the simulation, and concluded: "We are not sure City Council is ready or willing to listen to kids, but maybe it is about time someone did." (*The Euclid News Journal*)

SCOTT G. ISAKSEN and MRS. CAROL PRATT, both of *Country Parkway Elementary School, Williamsville, New York*, developed a "mini political economy" to teach economic and political concepts to fifth graders.* The children were prepared for the experience through a unit on political organization and through exposure to a variety of films, filmstrips, cassettes and learning kits on such things as economic systems, money and credit, taxes, labor and unions, supply and demand, banks, international trade, and government production of goods and services. The pupils then established two countries. They had to "start from scratch," setting up governments, electing leaders, obtaining money from a "World Bank," and forming business firms. The students experienced some realistic problems in launching their enterprise, facing up to vigorous competition, and coping with an oversupply of goods. A monetary unit had been created at the start, which could be spent, invested or deposited in the bank. "International" as well as "domestic" trade could occur. At the end of the simulation, the country with the most "money" was deemed to have developed the best economic system.

MARGHERITA SUE MORGAN of the *Trusty Elementary School* in *Fort Smith, Arkansas*, has developed a unit for her sixth graders entitled "The Workshop Way of Learning Economics." It is probable that all teachers who have attended workshops attempt to share their experiences with their students, but Ms. Morgan took the unusual step of practically replicating the workshop in her classroom. Her ten-day workshop covered such topics as economic systems, specialization, profit and loss, government's role in the economy, banking, money and credit, inflation, and unemployment. The workshop began with a "keynote presentation" by the district Director of Elementary Education. Work stations were set up where the pupils could learn in small groups, using filmstrips, tapes, books and discussions. The groups would use the stations in rotation. The class also heard community speakers from industry, labor (including workers currently on strike), banking and local government. The students took field trips, drew cartoons to illustrate economic concepts, and produced and performed skits. The Test of Elementary Economics (distributed by the Joint Council on Economic Education) was used as a pretest and posttest. The mean gain score for the class was 10 points, on a test containing 40 items. A teacher-made test, economics puzzles and games, the skits and other examples of pupil work, and letters from parents were also used for evaluation. The results were highly positive.

RUTH SEWELL of *Fairview School* in *Fort Smith, Arkansas*, has developed a six-week unit on the furniture manufacturing industry to teach economics to her fifth graders. Since furniture is a major industry in her area and is the employer of many of the pupils' relatives, it was easy to interest the children in the subject, to obtain material on the business, and to make field trips to some of the firms. The students learned that all three forms of business organization (proprietorship, partnership and corporation) are represented by the industry, and that all of the

*For an account of a similar project see Marilyn Kourilsky, *Beyond Simulation: The Mini-Society Approach to Instruction in Economics and Other Social Sciences* (Los Angeles: Educational Resource Associates, Inc., 1974).

factors of production (natural resources, labor and capital) are involved. They made wall charts tracing production from the natural resource (such as trees) to delivery to the consumer, and learned how other industries (such as textiles for the upholstery) become involved. Studies were made of the way in which technological changes have affected output, of wages and working conditions in the factories, of the relationship between saving and investment, of how government affects the industry, and of international economic principles and situations that have a bearing on the industry. The students engaged in role-playing, viewed filmstrips, interviewed resource people, set up an assembly line to manufacture furniture in the school, and did research to find out how the furniture industry affects the local economy and how it fits into the national economic picture. This project, which is described only briefly in this booklet, is an excellent example of how community resources can be used to teach basic economics.*

MARILYN S. CRAWFORD of *Port Republic Elementary School, Port Republic, Virginia*, developed a simulation to teach sixth graders about career possibilities, economic choice-making and personal budget-making. First, the children did research on their chosen careers and went on field trips to a college and a vocational-technical school. They then interviewed resource persons. Each child had a "salary" based upon typical incomes for the career selected, but they quickly learned that various taxes, retirement plans, and dues would reduce their take-home pay. The reasons for these taxes and other payments were then studied. The pupils had to shop for housing, plan menus, buy furniture and clothes, pay utility bills, purchase cars, and the like. They were expected to live within their incomes and to end the simulation without being in debt. From time to time "calamity" or "catastrophe" cards were drawn, presenting unexpected problems such as illnesses, fires, strikes, flooded basements and auto repairs. Various other realistic events were worked into the simulation, such as the need to buy anniversary gifts. To be successful, the children had to cope with these problems and emerge with their budgets "in the black." The simulation not only taught them much about their chosen careers, but gave them practice in good household planning and management. (Ms. Crawford was at Elkton Elementary School in Elkton, Virginia, while teaching this unit.)

*For ideas on using the community to teach high school economics, see *A Laboratory Approach to Economic Education* (New York: The Joint Council on Economic Education, 1975), available for $1.50 per copy.

CHAPTER THREE

The Struggle for Existence

An Interdisciplinary Team Unit in Personal Economic Competence for Grade Seven

Mary Rose Martin, Sybil Noll, Sue Haka and Michael Koltun

U.S. Grant Middle School, Springfield, Illinois

Introduction

This report describes the year-long experience of 130 seventh-grade students and a team of four teachers representing the disciplines of social studies, mathematics, language arts and science. Our program, entitled "The 'You-Man' Happening," is an interdisciplinary approach to the study of humankind. Working as a team, we developed ten units, each of which places heavy emphasis upon the importance of self–the individual's niche in society. Who am I, and how do I fit into the ecological world, the economic world, the world of divergent cultures, the future world, and the world of work? With this question as a guide, our team developed activities which the pupils found both instructive and enjoyable. With the help of an art teacher and a music teacher we also incorporated aesthetic happenings into the units.

Each unit was planned cooperatively by the four team teachers. The team developed concepts to be explored in each discipline, along with the activities which would lead to a pupil understanding of those concepts. The basic economics unit was entitled "The Struggle for Existence," and this unit will be the theme of this report. Each member of the teaching team was responsible for introducing, explaining and demonstrating the economic principles to be explored. As an initial exploratory study in economics, the unit focused upon the basic economic problem–unlimited wants vs. limited resources. The study ranged over time and across societies, concluding with a simulation of the economic system of the United States. The way in which each discipline contributed to the project is briefly described below.

Social Studies Activities

Concepts to be developed and/or reinforced through the social studies were those germane to the basic problems of every economic system, the nature of economics as a discipline, capitalism, the circular flow model, division of labor, distribution of income, gross national product, scarcity, supply and demand, and the consumer. The social studies teacher (Michael Koltun) would deal with the broad view of economic systems and with specific principles relating to the economic system of the United States. The textbook *Manpower and Economic Education* by Robert Darcy and Phillip Powell was used extensively. Activities included reading, class discussions and playing the game *Marketplace*. Students could earn extra credit for doing reports on particular economic topics.

After defining economics and learning why it is important to everyone, the class went into the details of how the factors of production (labor, capital and natural resources) operate, and how institutions (patterns of social organization and behavior) serve as the coordinating systems in our society. Then the three questions facing every society were analyzed: "What should be produced? How much? How should the wealth be shared?" The way in which different economic systems try to answer those questions was described. Capitalism was then the center of attention, recognition being given to the fact that ours is actually a mixed economy. The circular flow diagram was used to show how individuals, business firms, capital, labor, natural resources, money income, goods and services relate to one another.

In explaining division of labor and interdependence, Adam Smith's famous example of the pin factory was used, but then the students were asked to think about how division of labor is employed in their own families. The concepts were next applied to industries and to nations. It was at this point that the class was introduced to the critical notion of productivity. Consideration was given to values during the discussions on the distribution of income. The students were given statistical data on income distribution in the United States and were then asked to give their views on whether or not it was a fair distribution. More complex statistical concepts were introduced in the lessons on GNP, the Consumer Price Index and the unemployment rate.

Scarcity, opportunity cost and choice-making were the subjects of intensive study, leading to an examination of production costs and the relationship between inputs and outputs. The different forms of business organization were defined, and a flow diagram showed the role of business in our economy. The various economic functions of government were set forth, and this was followed by an in-depth study of the consumer's place in the market system.

Mathematics Activities

Mathematics activities were designed to deal with concepts relating to supply and demand, factors of production, the circular flow, the functions of money, the profit motive, specialization, and the market system. Sue Haka is the teacher who was responsible for the mathematics lessons. The *Marketplace* game developed by Security Pacific National Bank constituted the major activity, but this was preceded by considerable preparation through reading and discussing material dealing with banking, manufacturing, retailing and the like. Ten days were spent in actually playing the game.

We cannot give a detailed account of the rules and procedures because of limitations of space.* The game provides roles for heads of households, financial advisors, labor negotiators, product buyers, stock buyers, stock sellers, business executives, manufacturers and retailers. The household that acquires the most "units of satisfaction" wins the game. The manufacturer, retailer and banker with the most money at the end of the game will also be winners. The players deal with such things as raising capital, borrowing money, bankruptcy and labor relations.

Language Arts Activities

In the language arts, under the instruction of Mary Rose Martin, the students learned how human society is affected by economic, cultural, social and technological events. In particular, family relationships were stressed. The students read about life among the Aztecs and discussed the ways in which Aztec family struggles for existence compare and contrast with the endeavors of modern families. The Aztec market was compared with the markets of today. The roles of men, women and children in Aztec society were analyzed, and basic economic principles applying both to the ancient Aztec economy and to the twentieth century economies were used as analytical tools. For example, pupil worksheets included questions of the following type:

- What determined price and value in the Aztec market?
- How did supply and demand (as we understand it today) apply in the Aztec market?
- Why could cacao beans be used as money?
- What role did the Aztec government play in trade, and how does this compare with the roles of our federal, state and local governments in regulating trade and commerce today?

A simulation of the Aztec marketplace was also developed.

After reading about poverty, including the poem "A Dialogue on Poverty" from the *Anthology of Japanese Literature* (New York: Grove Press, 1955), the students were given the opportunity for creative expression by being asked to write about their concept of Utopia. These essays were to be tempered with realism, however, for they were required to keep in mind the conditions which affect an economy, such as population and food supply.

Material on division of labor, and how this raises productivity, was read and discussed. An assembly-line simulation was developed to illustrate the way in which this technique increases efficiency. Again calling upon the pupils to use their creativity and imagination, the language arts teacher asked them to write a paragraph explaining their choices of ten people they would take with them if they were colonizing another planet. This, of course, was directly related to the concept of division of labor, for they would have to show why different occupational specializations would be necessary.

---

*The game is described in the original report, which is available from the Vernon R. Alden Library, Ohio University, Athens, Ohio.

Science Activities

Science lessons, as taught by Sybil Noll, focused on the basic economic problem of scarcity. Resources (natural resources in particular) are limited, while wants are unlimited. Scarcity was approached by viewing the world as a whole, and noting the needs of the entire world population. Such periodicals as *Newsweek*, *Current Science*, and *U.S. News & World Report* were used, along with books and visual aids. A bulletin board display was used to illustrate various shortages, and students polled people in their neighborhoods on subjects relating to demand and scarcity.

Because such items as gasoline and sugar were in short supply at the time, and much publicity was given to this fact, there was little difficulty in motivating the students and in finding good examples of the scarcity principle. Free goods were compared with economic goods, and the various productive resources were studied. Population data were examined, with projections to the year 2000. Food and energy statistics were studied, much of the information appearing in the form of graphs and tables. The Malthusian theorem was analyzed. The need for precise definition of terms was stressed, and the fact that some words have one meaning when used by economists but quite another when used by the lay person was noted.

Evaluation

Four evaluation instruments were used to assess cognitive level learning. One was the Junior High School Test of Economics developed by Dr. Leon Schur and others at the Center for Economic Education in Milwaukee, and published by the Joint Council on Economic Education. Two were vocabulary tests, one of which was teacher-made, and one of which was based upon the *Marketplace* game. The teacher-made test was used for diagnostic purposes, helping us to see how much the students already knew about economic terms before the unit was launched. The fourth was a teacher-made objective test based upon economic principles and concepts. In addition, each student was required to complete a written project. Another way of evaluating the unit was to have students and parents respond to questions regarding the methods and materials used, and to express their general feelings about the experience.

The Junior High School Test of Economics contains fairly sophisticated questions of the following type:

"19. The final result of a large decrease in government spending for national defense would probably be:

A. Much unemployment in nondefense industries.
B. Increased production of nondefense goods.
C. An overall economic boom in the nation.
D. An increase in prices within the nation."

This 40-item test was normed with nearly 13,000 students in 22 school systems.*

*For norming data and other details see *Interpretive Manual and Rationale: Junior High School Test of Economics* (New York: Joint Council on Economic Education, 1974). Available for $2.00.

Student performance on the test indicated that they had indeed learned the economic concepts stressed in the unit. The teacher-made vocabulary test included 42 terms, such as Gross National Product, opportunity cost and free enterprise. The test associated with the *Marketplace* game contained some of the same terms, but was structured differently. In the former test the pupils were given a list of terms and asked to write definitions in blank spaces. In the latter there is a list of terms and then a list of definitions with which the terms are to be matched. The teacher-made objective test included multiple-choice items, definitions and true-false items. An essay question was also included, the student being given a choice between two items. ("Explain the idea of circular flow of economic activity in both a paragraph and a chart." or "Explain the concepts demand and supply and market equilibrium, using both a paragraph and a chart.") The results of all of these tests were positive.

The students could choose from a list of 32 activities the one they wanted to do as an individual project. The following are samples:

> "Write a paper in which you describe a situation involving division of labor in your own life at home, at school or at play. Explain how division of labor operated, and what happened in terms of specialization."
>
> "Explain and illustrate with a chart the functions of money."
>
> "Prepare a diagram or model that illustrates the idea of the circular flow of economic activity in our society. With your illustration include a paper that explains it."
>
> "Explain what is meant by GNP, and illustrate your remarks with graphs, charts and schedules."

The form asking the students to evaluate the unit included fifteen items, such as the following:

- Do you feel the unit was too advanced, about right or too easy?
- In general, was this study interesting, boring or "the usual kind of stuff?"
- Did you work—or study—as much as usual, less than usual or more than usual?

The formal questionnaire sent to parents asked them to indicate the extent to which they became involved in the project, whether or not the child seemed to understand what he or she was doing, to what extent the pupil was interested in the work, whether the material was too advanced or too easy, and so on. Pupils and parents also responded to a questionnaire in the form of a summated rating scale containing such items as these:

> "Teachers and students understood each other very well."
>
> "Teachers were attuned to the practical world of work."
>
> "Most of the time the materials used were too advanced."
>
> "More frequent evaluations of student work would be desirable."
>
> "Too much homework was given."

The respondents were asked to check Strongly Agree, Agree, Undecided, Disagree or Strongly Disagree for each of the seventeen items. It is interesting to note that there was considerable agreement between students and parents. For example, the majority of both groups did *not* agree that too much homework had been assigned.* There were also open-ended questions asking for an indication of the most valuable activities and for the least valuable. The economics unit and the *Marketplace* game proved to have been very popular.

Clearly, a team made up of teachers representing several disciplines can cooperate in the development of economic understanding on the part of junior high school pupils. It appears not only that seventh graders can be taught many basic economic concepts, but that the experience can be an enjoyable one.

*See the original report for copies of the evaluation instruments and the details on the results of their use.

Community Simulation Game

Bruce H. Jasper

Hosterman Junior High School, New Hope, Minnesota

Introduction

Economics is the ninth-grade social studies course in our school district. It is divided into three general sections, all of which focus on the basic economic problem of using scarce resources to satisfy virtually unlimited needs and wants. Basic economic relationships are developed in Section One; the traditional, command and market economic systems are examined in Section Two (with the emphasis upon our mixed market economy); and economic problem areas in the United States are studied in Section Three.

At Hosterman Junior High School the emphasis has shifted from the discipline-centered type of course outlined above to one which focuses on personal economic decision-making and skills. The more traditional units covering basic

Note: This is a brief summary of a 150-page report. The original can be obtained from the Vernon R. Alden Library, Ohio University, Athens, Ohio. — *The Editors.*

concepts and systems have been condensed into a ten-week introductory unit; while the following 14 weeks are divided into two- to four-week electives on such topics as inflation, poverty, pollution, labor relations and the energy crisis. For the final 14 weeks of the school year the staff wanted to develop a unit that would provide knowledge of the economic relationships found within an urban environment, develop personal economic skills, and encourage an attitude of personal economic efficacy.

Short units on budgeting, community economic decision-making, consumer credit, banking and consumer protection were developed. Films, readings, discussions, speakers and commercially produced simulation games (such as *Consumer* and *The Budgeting Game*) were used. Formal tests showed that the units taught basic economic knowledge and some skills (such as using checks and credit) but that they did not develop an understanding of the complexities of the urban economic environment, nor did they serve to motivate students very highly. Thus, it was decided that a simulation game on urban economics would be created and tested.

The Simulation

The city is a complex phenomenon, and to understand it one must study several disciplines—history, political science, sociology, geography, economics and others. Economics was to be the primary discipline, however. It would be related to the other disciplines when necessary, as in the case of studying the economic implications of geographic factors. For example, the space between sources of supply and the market where demand exists helps students to see that cost is affected by the distance between the two. Students are consumers from birth, and as they grow older their roles as producers tend to increase. Understanding the complexity of the urban economic environment will enable them to be more knowledgeable consumers and producers. This knowledge, coupled with problem-solving skills, might help them to cope with real-world problems and eventually lead to better urban planning.

Of course simulation games are not new, and the experiences of many others who have developed and evaluated games were examined carefully. Thus, descriptions of the roles of consumers, credit agents, budgeters, town developers and town planners provided in such games as *Consumer*, *The Budgeting Game* and *New Town* were helpful in creating similar roles in our Community Simulation Game.* Rules and materials found in other games also suggested models for us to use. To understand the simulation it will be helpful to examine the design process, which is briefly outlined below.

The Design Process

As already noted, the game was created to help us to achieve instructional goals not being reached by other teaching strategies. There were four steps in the process of designing the simulation.

Step One—Identification of Instructional Objectives. The game was to be part of a broader unit of study entitled Urban Economic Geography, and it was

*See Chapters II and III of the original report for details on these games. Also see Darrell R. Lewis, *et al.*, *Educational Games and Simulations in Economics* (New York: Joint Council on Economic Education, 1974.)

intended for use in conjunction with other activities. Thus, some of the objectives were not meant to be achieved by use of the game alone. Among the game's objectives were the teaching of such personal economic skills as using a checking account, locating suitable housing, obtaining and using credit, preparing job applications, and keeping personal budgets; developing interpersonal skills relating to oral communications, ability to persuade others, working in groups, and developing compromises; and encouraging positive attitudes toward community participation, the roles of others in the community, and economics as a tool for personal economic decision-making.

Step Two—Definition of the Simulation-Game Model. Simulation games are models of real life, but with only selected facets of real life situations represented. The Community Simulation Game was designed to identify those facets of the urban economic environment which show the relationships between areas of production, consumption, distribution, the individual, and the decision-making process. The students should be able to practice many economic skills and get immediate feedback on the effects of their actions and decisions. The business sector had to be included, and this took the form of pupil-developed business firms to create and sell goods and services to the simulated community. A real estate industry was an important dimension to deal with the sale of land and buildings. Banking institutions were provided to handle loans, savings accounts and checking accounts. Government would be involved in coordinating the actions and interests of individuals and businesses and in providing legal structures. Diagrams entitled Community Interaction Models were prepared to illustrate the relationships among the various groups, institutions and individuals. For example, arrows drawn between a box representing the City Planning Board and a box representing Households would show taxes flowing from the latter to the former, and zoning decisions flowing in the opposite direction. An arrow marked "Salary or Wage" would flow from the Business box to the Household box, while an arrow marked "Labor" would flow in the opposite direction. Each arrow thus represented a transaction that would occur during the course of the game. In total, these transactions would provide a comprehensive and true-to-life representation of economic activity in an urban environment. They can range from obtaining personal loans to participating in city council meetings, and the number can be expanded greatly, depending upon the time available, the sophistication of the students, and so on.

Step Three—Definition of Roles. Each student represents the head of a household from the start, but then goes on to develop additional roles he or she wishes to play. The student draws a card showing his or her age, marital status, educational level, work situation and the like. Using this information as a base, the student then creates his or her own life history and desired lifestyle. Each student also selects a community role in business, banking, or real estate, or simply becomes a "concerned citizen." Institutions such as banks, real estate agencies and governmental units are established. Students obtain jobs, buy cars and rent or purchase houses. There is flexibility in role development, so that students have become bums, hippies, card sharps, stock brokers, newspaper editors and others not called for in the model. These people must interact with others in the community, however.

Step Four—The Sequencing of Activities. The game was made up of ten phases in which the activities were ordered. The length of a phase can depend upon many things, such as the knowledge and skill of the students and their familiarity with the playing of simulation games. In our case, Phase I was a one-week period in which

students were provided with urban economic and geographic concepts to give them background information. These nongame activities taught them about spatial relationships and abstract economic principles they would be dealing with later. Phase II was a week-long introduction to the simulation game model and to the roles the pupils would be playing. It was during this phase that pupils selected their role cards and began to develop more personalized roles for themselves. Phase III may take from two to three weeks, and includes game and nongame activities. Roles are defined even further, and pupils elect to enter one of the designated areas (business, banking, real estate or "concerned citizen"). This provides the structure from which urban economic institutions will be developed. In the one-week period of Phase IV, the students begin to interact within the simulated community in accordance with the roles selected in Phase III. Banks, business firms, governments and agencies are created during this phase. During the Phase V week, students perform such initial economic transactions as securing housing, obtaining loans, purchasing automobiles, opening checking accounts and getting jobs. Phases VI, VII, VIII and IX last from one to two weeks each, although each phase represents a "month" in the simulated community. The students engage in their work, receive and deposit pay checks, repay loans and attempt to balance their personal budgets. They also become involved in city government and urban decision-making. The number of phases can be reduced or increased on the basis of student need and interest. Phase X is a two-day debriefing period. The students discuss their strategies and game interactions, and relate the simulation game and other activities to the real world.

The last task in the design process is the development of specific activities to teach the desired objectives. Of course, activities are continually evolving to meet student interests and needs.

Overview of the Game

The game simulates a small urban community containing a variety of businesses, banks, real estate agencies and a local government. Each student begins with a given identity and a certain amount of money. The student is considered successful if he or she can engage in all the needed financial transactions over a four to six month period and emerge with a balanced budget. The players compete for jobs, credit and housing. Each must obtain housing, get a job, prepare a monthly budget and keep accurate financial records. The business people plan both the physical and financial structures of their firms. Students may choose to start any business, and success will be influenced by such things as location, demand for the product or service and the use of sound business practices. Businesses buy real estate, use bank services and provide jobs. The banks offer credit and keep all bank accounts, and the student bankers must be able to compute interest, negotiate loans, handle checks and keep accurate accounts. The realtors develop land and sell homes, land, offices, stores and factories. The "concerned citizens" develop a city government and help to plan land use. They also analyze and suggest solutions to urban problems faced by the community.

In addition to the game activities there are readings, discussions, worksheets, films, filmstrips, transparencies, maps, guest speakers and the like. Supplementary activities can be included as needed. After most activities there is a discussion of what happened, so that students can compare strategies and analyze or explain

outcomes. Students who had difficulty will study the work of those who successfully completed similar tasks. Continuous debriefing allows the pupils to reflect upon the relationships in the game, and to relate the game to supplementary materials and activities. Areas of interest are explored while student motivation is at its highest. New elements, such as a welfare system or a stock market, may be incorporated into the game as it progresses, but this will usually require additional time.

Final Debriefing

During the final debriefing all elements of the game are brought into focus. This begins by having the students bring their accounts up to date, pay all outstanding bills, assemble all contracts, and gather up all other relevant documents. The community interaction models may be reviewed also. Thus, *Step 1* in the debriefing process asks the question: "What happened to you?" The teacher asks questions of the following type:

- Was it best to buy or rent a house?
- How did your personal desires affect the role you played?
- How did you get your job?
- What happened to people who could not find a job?
- Did financial security depend upon your role or upon your strategies in working and budgeting?

Step 2 addresses the question: "What are the principles that made things happen?" Step 1 dealt with fairly concrete data, but Step 2 involves cause and effect relationships, and an understanding of interactions. Sample questions are as follows:

- What effects do player decisions in one sector have on other members of the community?
- Why are some community members more powerful than others in exerting influence over community development?
- How much control does the individual have over his or her economic life?
- Why were some students trapped by circumstances into unpleasant life situations? Could they have escaped? How?

Step 3 poses the question: "How does the game compare with real life?" Questions like the following call for knowledge of facts and for analysis of situations:

- Did the players and institutions react and operate like their counterparts in real life?
- What aspects of the simulated community seemed untrue to life?
- Would people in real life follow the same strategies and make the same decisions you made?
- How do the effects of poor decisions made in the game compare with the effects people in real life would experience?
- What real-life elements were left out of the game?
- How did you feel when you could not get a job or a loan? How do you think people in real life feel?
- What events made you frustrated or angry with other players? How would similar events affect people in real life?

Evaluation

Feedback on the effectiveness of the Community Simulation Game was obtained from written tests, class discussions, a written questionnaire and personal observation. Personal observation indicated that most students enjoyed handling checks, obtaining housing and securing credit. Less enjoyable were the tasks of applying for jobs, being interviewed and maintaining budgets. Yet, the students perceived all the tasks as being necessary to their functioning in the community, and they responded favorably toward all interactions referred to on the questionnaire. Student interest and involvement in performing interaction tasks began to fade, however, during the fourth month of the game. During the debriefing session, the pupils compared their declining interest to that of their parents who had established certain patterns in handling their finances and thus fell into "the same old rut."

Nongame activities were moderately successful. Background information on bank services and procedures was well received by students who were assuming banking roles, but was of less interest to the others. The least successful activities were those dealing with city government, probably because the pupils had already studied political science and considered the nongame material redundant, and because the materials were dull and poorly written.

The area of greatest success was the flexible structure of the game that allowed the development of additional economic institutions. As student interest grew in various areas, the student was encouraged to pursue that interest. Thus, during the game a stock market was established, two newspapers were formed, and several credit agencies appeared. Flexibility was also evidenced by the interdisciplinary expansion that occurred. For example, industrial arts teachers became involved in the drawing of blueprints for homes and businesses. English classes participated in helping to publish the newspapers, develop advertising campaigns, and examine urban lifestyles through contemporary literature. In science classes there were experiments testing water quality, soil types and industrial pollution. Math teachers allowed students to run computer programs on interest rate tables and construction costs.

A major weakness of the game is the lack of an adequate evaluation tool. Formal tests show the game to be as effective as the more conventional approaches in teaching economic concepts. The game is a better device for teaching a wider range of personal economic skills. Yet, there is a need for a better instrument to measure the degree to which the Community Simulation Game teaches understanding of process, increases student motivation, and develops attitudes relating to personal economic efficacy.

Outside observers have been favorably impressed by the game. A writer for a local newspaper devoted two columns to a description of the project (*North Hennepin Post*, June 19, 1975), and the Executive Director of the Minnesota State Council on Economic Education concluded that "any experienced teacher can manage the entire simulation without having extensive prior training." (Letter to the Joint Council on Economic Education from Dr. William Becker, June 30, 1975.) When an overview of the unit was presented at a conference of social studies teachers the response was overwhelmingly positive. Finally, the simulation will become part of Hosterman Junior High School's Career Education Program next year.

Occupational Career Economics

Edward W. Demmer

McLoughlin Junior High School, Medford, Oregon

Introduction

The course "Occupational Career Economics" is designed to develop an understanding of economic concepts on the part of junior high school pupils. Before creating this course I attempted to introduce students to such topics as production, consumption, supply, demand and competition in an Occupational Career Exploration class, but was not satisfied with the results. For the 1974-75 school year, then, my goal was to structure a course that would bring about student understanding through involvement. Economics has traditionally been a high school subject in our district, and has been almost nonexistant at the junior high school level. Yet, economics is probably the most widely discussed and debated subject today, and everyone is involved in economic decision-making.

The target population included seventh and eighth graders and nongraded classes. Many ethnic and socioeconomic groups are represented in the school. We have a nine-week elective system wherein students may elect certain subjects in addition to meeting specific course requirements. "Occupational Career Economics" was to be a nine-week elective course in basic economics and a follow-up to the Occupational Career Exploration class. Two classes were formed for the January 27-March 21 period, and two for the March 31-June 4 period, for a pupil total of 98.

Feeling that a traditionally taught course (with activities limited to the use of a text and workbook, viewing films, and holding class discussions) would have little success, I planned to develop an on-going simulation based upon the corporate form of business firm. It was hoped that students would thus learn to make better economic decisions as producers and consumers. These decisions should be made after appropriate data have been collected and analyzed through the use of sound economic principles. My plan was submitted to the Oregon Teacher Incentive Program, and I was awarded with $479 to purchase materials and equipment.

Instructional Activities

First, I shall briefly outline the activities for each of the nine weeks, then give further details on the major instructional strategies.

First Week: The pupils were given pretests, which I prefer to call Performance Indicators. Performance Indicator 1.2 is designed to measure understanding of

25 basic economics terms, such as capital, demand, diminishing returns and profit. Performance Indicator 2.1 measures knowledge and understanding of such concepts as the market system, supply and demand, price determination, wages and productivity. Both were used as pretests. (Further discussion of the tests will follow.) We then read *The Adventures of Primero Dinero* (Chicago: Follett, 1971) to get an introduction to basic economic terms and concepts, and viewed the film *Mrs. Peabody's Beach* (Disney, 1972) which provides a development and review of those concepts.

Second Week: Our subject was the development of the American economic system. The text *Economics for Everybody* (New York: Amsco School Publications, 1974) was used to gain an understanding of free enterprise, competition and the profit motive.

Third Week : First there was a brief overview of the major economic systems—capitalism, socialism and communism. Then some aspects of the American economy were studied in greater depth through use of parts of the High School Geography Project. The factors of production (land, labor, capital) were stressed, along with the profit motive. Then, in preparation for the simulation, the classes were introduced to forms of business organization (proprietorship, partnership and corporation) and to corporate finance.

Fourth Week: The simulation called "The Mac Corporation" was introduced during the fourth week. The students received a packet of material about this hypothetical firm (to be described later) and were asked to set up the administration and to hire employees. With little or no direction from the teacher, they had to develop salary schedules.

Fifth Week: New the students had to determine the direction the corporation would take, using data supplied by the teacher. They were provided with figures on monthly sales and costs, and they had to find a way of reducing costs while increasing sales. The figures are used to make graphs, and these are analyzed by the members of the Board of Directors. Conflicts arise, and these must be analyzed and resolved.

Sixth Week: Now aware that they need more information and greater insight to be able to make logical decisions, the students are ready to have a series of lessons on the principles of demand and supply, productivity, wages in a market economy and profits. Filmstrips and worksheets are used, and each lesson is related to the "Mac Corporation."

Seventh Week: The Board of Directors is given the task of cutting annual expenses by $700,000 and of preparing a paper explaining and justifying their decisions. The "Payroll Department" must prepare checks and determine the firm's cash balance. The "Marketing and Research Department" studies the role of the consumer and works out a sales program. The "Production and Purchasing Department" draws up plans to make the plant more productive and efficient. A Board meeting is held to prepare a policy statement based upon the outcomes of the departmental actions.

Eighth Week: The students are introduced to the American labor movement, first by viewing the film *The Inheritance* (Contemporary Films, 1965). They learn about labor in American history and about labor's place in the economy

of today. Several assignments are given which include labor history, collective bargaining, wages, productivity and related topics. The Board of Directors is then informed that the plant's engineers are voting to affiliate with a union. Labor leaders are appointed, and negotiations with management begin.

Ninth Week: The collective bargaining session may culminate with the writing of a union-management contract, and this brings the simulation to a close. The class now reviews the work of the course, sees *Mrs. Peabody's Beach* again, discusses their experiences in the "Mac Corporation" simulation, and has a final evaluation session.

Now that an overview of the nine-week course has been presented, let us discuss in greater detail some of the components of the project.

The simulation was outlined above, but additional data might be of interest to those who wish to replicate it. Several documents and forms were prepared for use with this activity. The students received an historical overview of the corporation, explaining how it had been founded, how it developed from a proprietorship to a partnership and then to a corporation, and how it expanded.* Another paper gave details on the firm's present status–a description of its products (candies and foods), current assets, number of employees, major shareholders and financial position. Other mimeographed materials included a "Report to Shareholders," a diagram of the corporate structure, job descriptions for executives, responsibilities of various departments, an itemization of labor costs, forms for recording administrative and other costs, a weekly financial position report, an agenda for a Board meeting, sales data, stock certificates, and the union contract.

The documents were designed to give a simple, but realistic, picture of a corporation. The financial statement included such items as cash, receivables, value of inventories, investments, property, plant, equipment, notes payable, deferred income taxes, long-term debt, and shareholders' equity. Data on labor costs included not only the wage rates but social security taxes, state unemployment taxes, retirement fund, paid holidays and vacations, and health and welfare plans. The form for recording major purchases listed nearly 50 materials needed to produce the candy and food items, with spaces for their unit prices and percentage changes over time. It also accounted for office furniture, equipment and supplies; energy costs (broken down by type); tools; advertising (broken down by media); marketing costs; and others. The monthly sales analysis form provided monthly sales data on each item produced. Since conflicts arose from time to time, a "Conflict Analysis" form was prepared. This called for an identification of the problem, the listing of possible choices or alternatives, an explanation of the pros and cons of each choice, and an account of the final decision. Some of the assignments and test items were directly related to the simulation. For example, an assignment that preceded the collective bargaining session required students to define such terms as strike, injunction, lockout and slowdown. It also provided them with an understanding of arbitration, mediation, collective bargaining procedures and the like.

---

*Documents, tests, samples of student work and other illustrative materials are appended to the original report, which can be obtained from the Vernon R. Alden Library, Ohio University, Athens, Ohio.

It should be noted that a rigid schedule may not be possible with a simulation of this type. Originally, only two days had been set aside for designating wages, but so many conflicts and problems arose over this issue that one class spent an entire week discussing wages, and disagreements over wages surfaced almost daily thereafter. The collective bargaining session became serious business, with pupils experiencing the same frustrations felt by their elders in the real-life union-management conflict situation. When the Board of Directors in one class laid off seven students, it became necessary to institute a system of unemployment compensation. The teacher must be prepared to cope with unexpected events of this nature.

Course Outcomes—Evaluation

Several methods were used to determine the extent to which the goals were achieved, ranging from formal written tests to analyses of videotapes of class sessions. A "Course Evaluation Guide" was prepared, with the goals listed in the lefthand column, the performance indicators related to each goal in the center, and the criterion levels in the righthand column. For example, the first goal was that students would develop a basic economics vocabulary. (Goal 1.0.) Two performance indicators were listed for this goal—1.1 involved the videotaping of three sessions, the project director later counting the number of economic terms used per session; 1.2 was a vocabulary test in written form, containing 25 economic terms. The criterion level for 1.1 was that at least 20 different terms be used; for 1.2 that students define at least 70 percent of the terms correctly. This goal was achieved, for the analysis of the videotapes showed that an average of 35 economic terms were used during the sessions (and never fewer than 28), and that they were used properly, while the written test revealed that students correctly defined 82 percent of the terms (as compared with only 20 percent on the pretest).

Performance Indicator 2.1 was a written test on seven basic principles. Under the heading "Market System," for example, there was a list of six statements, and the students were to check those which describe the market system. In this case, the pupil would be expected to check "The dollar vote tells the producer what to produce." He or she would not be expected to check "The government decides who can buy what." The criterion level called for correct responses for five of the seven principles. This was surpassed, for students gave correct responses in 86 percent of the cases as compared with only 17.9 percent on the pretest. All students went beyond the stated criterion level.

Performance Indicator 3.1 took the form of a written test of ten economic problems that evolved from the simulation activity. Four alternatives were listed under each of the ten problems, and the student was asked to select the best choice. Initially, the teacher's judgment was to prevail in determining the "correct" response, and students were expected to solve 70 percent of the problems as the teacher would have done so. During a review of this exercise, however, it became apparent that the "correctness" of several of the alternatives depended upon one's values. Thus, although the students met the 70 percent correct level that I had established, I had to agree that there were no "right" or "wrong" answers in some cases. Problem 4 will serve to illustrate this:

Problem 4: Reduction of administrative wages by the Board of Directors to save money for the company.

_____ The Board should have reduced all wages evenly on a percentage basis.

_____ Board members should have taken the biggest cut since they made more.

_____ The Board should have reduced all workers below the rank of directors only.

_____ The Board should have reduced the number of workers in the unions within the plant in order to save administrative wages.

The first alternative had been my choice, but cogent arguments could be made for the second as well. In any event, this unexpected development shows that pupils were thinking independently and were attempting to clarify the values which underlie policy decisions.

Performance Indicator 3.2 gave the students a consumer good and asked them to list various cost items that would affect the consumer price. They were expected to list at least ten, such as raw materials, capital, research and development, transportation, labor, and the middleman's expenses. The success rate was nearly 90 percent on this test.

In Performance Indicator 3.3 the students were given two goods and the various inputs (such as labor, raw material, transportation) needed in producing them and delivering them to the consumer. They were asked to indicate the percentage of total cost accounted for by each input. This proved to be too difficult for students at this level, however; probably because they were unable to convert costs to percentages.

Some general observations emanated from a discussion with the principal. Among these are that the course could have provided a more "in-depth" experience if it had been limited to eighth graders, that the wide range in reading levels (from 3.5 to 12+) necessitated a "watered-down" approach, that the "Mac Corporation" did bring about a better understanding of the role of the corporation in our economy, that the classes did learn a new vocabulary, and that the competitive spirit that developed served as a positive inducement to learn.

Students gave the course a high rating. The vast majority stated that they learned a great deal, enjoyed the project and thought it should be continued. (This was in response to a formal evaluation questionnaire.) Although there are some "bugs" that must be worked out and some modifications that must be made, I feel that the course was reasonably successful. There is ample evidence that the pupils did learn some economic concepts, and I am convinced that their knowledge and understanding will grow as they become more involved as participants in our economic system both as producers and as well-informed consumers. As for me, I got more personal satisfaction out of teaching these economics classes than I have obtained from other courses in recent years.

The Fad Factory

Economics for Educable Mentally Retarded Students

Anita D. Miller

Chase County High School, Cottonwood Falls, Kansas

Introduction

"The Fad Factory" project was developed for a special education class of educable mentally retarded students at the junior high school level. The school is in a small rural community, but the students have diverse backgrounds. The project was designed to introduce the students to basic economic concepts pertaining to the world of work and the management of finances. Generally, special education pupils have difficulty relating to the abstract concepts included in traditional economics courses. The intent, therefore, was to use an approach that would allow the students to "experience" various economic concepts in an interesting and personally meaningful way. It was felt that a business approach, combining manufacturing and sales operations, would clarify concepts relating to production and marketing. Some of the goals were as follows:

- To help students to understand concepts involving production, distribution, exchange, economic incentives, and consumption.
- To provide practical experience in such business practices as record-keeping, handling orders, using office machinery, and explaining products to customers.
- To enhance student ability to apply reading and mathematics skills to realistic everyday situations.
- To help students to function more effectively as economically literate citizens in their personal lives.
- To encourage economic reasoning as a basis for decision-making.

The Project

After considering time and space limitations, I chose to have the pupils produce goods made from polyester resin. Ash trays, paper weights, napkin holders, hot-dish trivets and pictures were selected because these items would be marketable in our school. October and November of 1974 were used primarily to train students to produce the items, write receipts, make change and the like. Orientation to business organization was also stressed, and pupils became acquainted with various job responsibilities. We had practice exercises to review skills in measurement, mathematical calculation, operating adding machines, completing order blanks, handling hazardous material, and dealing with customers. It was during this introductory phase that I presented the class with problems of the type they might encounter later, such as customers who were not able to pay at the time of ordering. Sample products were manufactured for display, and advertising was started.

For five school days before the Thanksgiving vacation the Fad Factory was open for the receiving of customer orders. A display of sample products accompanied by a price chart was available. Each order was written up on a separate blank, containing the customer's name, a specific description of the item, the quantity being ordered, the date and the price. These orders, of course, were used to determine the volume of output. Each order was passed to the adding machine operator, who would total the customer's purchases. The order and the adding machine tape then went to the cashier, who collected money from the customer and made change. The bookkeeper would then write a receipt and record the transaction. At the close of each business day, the money was counted and balanced against total purchases.

Production and distribution occurred during a three-week period between the Thanksgiving and Christmas vacations. About three and one-half hours each morning were used for this. Each "employee" would read some of the order forms and decide what he or she would make on that day, and what materials were needed for production. Each worker was also responsible for reexamining products he or she had made on the previous day. This was part of our "quality control" process. Only high-quality products would be sold, and the employees would not be paid for items that did not pass inspection. A "Wage Computation" form had been prepared for recording each student's output and the wages earned. As each customer's order was completed, a note would be written telling him or her that the goods were ready to be picked up.

One of the first economic concepts that had to be learned was production cost. At first, we purchased only enough raw material to produce the sample items. Then, as income was earned by the sale of goods we would decide how this revenue was to be allocated. Thus the students learned that production costs include wages, raw material and equipment. Unit costs were computed for each of the ten items, both in the aggregate and for each of the factors of production used. The pupils could see that the unit wage cost for Item 6, for example, was more than double that for Item 2.

The concept of consumer demand was an important one, for it was decided from the start that we would not produce goods and hope to sell them, but that we would survey the market and thus reduce some of the risk. Prices were based upon the unit costs of production for each item, with a modest markup added. The strength of consumer demand had to be taken into account before deciding on the size of the markup. Since Christmas was approaching, the students expected that there would be a healthy demand for their goods. They made estimates of the potential market for each item, and later compared actual with projected sales. Tabulations were made daily in order to keep production fairly close to actual demand.

Advertising was done through posters and use of the school's daily bulletin. The posters were designed to provide pertinent information on the products, and therefore the students had to be knowledgeable about each item and its production costs. One of the Basic Business classes visited our factory, which gave the students an opportunity to explain the way in which our firm operated and to discuss the business and economic concepts exemplified by it.

Daily checks were made on the quantity of each item produced, and production rates were computed. This provided valuable information in planning future production changes. Inventories of raw material were kept and were used in production planning. Periodically, estimates were made of the amount of material

that would be needed for the future by multiplying the quantity needed for each item by the expected demand for that product.

Wages were paid on a piece-work basis to provide an incentive for increased production of high quality, and because it was difficult to measure time actually spent. The piece-work rates varied in accordance with the difficulty of producing each item, thus reflecting some real-life situations. Wages were recorded on daily wage sheets and totalled and paid at the end of each week. The bookkeeper received a regular salary.

The students quickly learned that all income is not profit, for some of the revenues had to be used to purchase materials. Currency was used throughout, so that the students could better understand money and cash flows. The bookkeeper kept records of income and expenditures. Thus, the pupils learned that profit is what remains after all production costs have been paid.

Evaluation

Keeping in mind the intellectual capacities and potential of each student, I decided that the ability to communicate to others the "what," "how," and "why" of project activities was the most feasible measure of learning. Ability to apply previously learned skills in reading and mathematics to the project would also provide a basis for evaluation. The amount of supervisory assistance needed would be an indication of the extent to which students were learning to work independently.

An important outcome of this project was the interest shown in fellow "employees," and the cooperative spirit that evolved. The students often voluntarily helped each other to solve individual production problems. Improved relations with regular students was also a surprising outcome. Often, regular students hesitate to become acquainted with the special education pupils or their program. This project provided an opportunity for others to come to our classroom and see what special education is all about. Many comments were made to me by customers about not realizing that my students possessed such skills as this project required.

Better community relations also developed as a result of the project. We received good newspaper coverage, and the public thus became informed about special education. Generally, the public is not aware of the purposes and accomplishments of the special education program.

On two occasions, I was invited to present the Fad Factory project to groups of professional educators. One was at the spring meeting of the Alpha Delta chapter of Delta Pi Epsilon, a national honor society in business education. The other was at a June workshop on consumer and economic education, sponsored by the Kansas State Department of Education in cooperation with Emporia Kansas State College.

Some of the most interesting comments on the project were made by the Basic Business students who had visited our factory. A sample of these follows:

> "The way they are learning by working is great. They are making money and will satisfy people's wants . . . ."
>
> "The factory is a good idea to help your students to learn about today's business."
>
> "I think you all have a good thing going. Hang in there."
>
> "It is a nice little organization. I think they know what they are doing. . . .This is a good project. . . ."
>
> "I think the project your class has started is really super."

Finally, the responses of my students and of the public to this project helped to make all the work worthwhile. The outcome helped me to realize the value of such an undertaking and increased my own willingness to continue to improve my own instruction.

APPENDIX TO CHAPTER 3

Good Ideas in Brief: Junior High School Level

PATRICIA A. SMITH of the *Edison Freshman School* in *Midland, Texas,* incorporates economics into her ninth-grade American History course. One of the ways in which she makes history relevant to today's student is to show the link between the 1930's and the 1970's in a study of life styles. Life styles are affected by income, culture, value systems and career choices, so all of these elements were included in the project. "Time capsules" in the form of hobo sacks were developed to show what life was like in the 1930's. The students interviewed relatives to learn about their life styles during the Great Depression. In addition to gathering facts on such things as how they earned a living, what they ate, what they did for entertainment, etc., the interviews "elicited the full range of human emotions" and showed how the Depression's effects varied among different income groups. The economic concepts related to this activity were scarcity, opportunity cost and income distribution. The students participated in sociodramas to depict the life styles of farmers, merchants, doctors, laborers, housewives and others. For an exercise in value clarification, the youngsters were asked to state which occupational group they would rather belong to (and why), and this served to show them that their present values affected their choices. Booklets were made to illustrate the similarities and differences between the two time periods, and there were "brainstorming" sessions on such questions as the following:

- What does work mean to you?
- What does it mean to be successful?
- How do you feel about people who are unemployed?
- How can a job change you?

FRANK R. IACONO of the *George J. West Middle School* in *Providence, Rhode Island,* used a real $100 bill to teach his eighth graders some basic concepts about money, banking and the economy.

The presentation of a $100 bill has a uniqueness that compels attention. From this starting point, Mr. Iacono maintained student interest through a series of steps, or enactments, that saw the bill being passed from hand to hand as part of designated money transactions. Exploratory questions formed a vital part of this instruction too.

After the bill's initial display and proof of its authenticity was established, Mr. Iacono proceeded with his leading question about the wisdom of keeping money hidden at home. The class ultimately responded that it would be better to invest the money, but without foreknowledge as to the consequences of investing. A student was then selected to be the "bank officer" who would accept the $100 deposit and issue a facsimile passbook. Mr. Iacono then asked: "Now what is the bank going to do with the $100?" After some discussion, the class learned that the bank would lend it or invest it. Another student was chosen to play the role of someone wanting to borrow money, and who must undergo a credit investigation and sign a promissory note to get the funds. At this point the class learned about interest and why it is charged and how it becomes a source of income to bank depositors. A third student then became a merchant selling a product to the borrower, while others served as the merchant's employees, suppliers, and so on. Eventually it became evident that there would be a multiplier effect as the same money changed hands several times, and that it had helped to increase production and raise the nation's real income and level of living. Challenging questions were raised to show the class what might happen if the money were withdrawn from the economy instead of being invested, and how this would relate to the business cycle.

BARBARA G. BOYD, of the *John C. Myers School* in *Broadway, Virginia*, includes economics in her eighth-grade civics course. Finding that students tended to view business as "the scapegoat for all the ills of American society," Mrs. Boyd has tried to help the pupils to become more objective, and to employ economic analysis rather than prejudice and pure emotion when examining such issues as inflation, pollution and the energy crisis. Conducting community surveys, analyzing newspaper editorials, and helping to develop a simulation game were some of the many activities. The game, entitled "Borrowers and Lenders Be," involved simulations of a telephone company, an electric company, a large private firm, a school system, a government agency and five small businesses. Each of these had been studied in advance, through field trips, guest speakers from their real-life counterparts in the community, and printed material. As the game was set up, the total need for funds exceeded the amount of money available from banking institutions and individuals. Thus, the demand for funds exceeded the supply, and the various institutions found themselves competing for money. Each potential borrower would then have to prepare convincing economic arguments to support its request for loans. The pupils prepared booklets or brochures on their firms or institutions, based upon data obtained from their real-life counterparts. The lenders, meanwhile, had to be prepared to ask hard questions in order to decide who should get their scarce funds. The students not only found this exciting, but they learned a great deal about the problems of raising capital, interest rates and what affects them, and how the capital markets function.

STEVEN DWORETZKY of *Tetard Junior High School, Bronx, New York*, has developed a program in consumer education for ninth graders. The Consumer Education Program is an interdisciplinary program coordinating the subject areas of mathematics, English, social studies and industrial arts. One of its focal points is the construction of scale models by small groups of students. As the construction process passes through all of its stages (planning through completion), the students

complete units of study in math such as measurement, scale drawing, banking, budgeting, taxes, sales slips, percentages, and consumer problems and their resolution. In English, the ability to communicate orally and in writing is emphasized. Articles concerning consumerism are written and a class paper can be produced, complete with advertising, and printed in the printing shop of the school (graphic arts class). Social studies classes focus on the role of government in preventing and prosecuting consumer fraud, and the role of the individual citizen in improving his or her life and the well-being of the community. As the students pass through each stage in their project, they meet and deal with the actual problems they will face when they leave school (including the computation of sales tax on anything they buy, whether from their shop teachers or local merchants).

A second focal point of the Consumer Education Program was a series of lectures delivered by members of the community. These volunteers were owners and operators of supermarkets and department stores in the neighborhood who came to our school to enlighten the students as to the workings of a major business concern.

The third and perhaps most salient feature of the program was the setting up of a student-operated "Consumer Information Center." New York State Attorney General Louis Lefkowitz was present at the dedication ceremony of the Center. The students provided practical information for consumers and actually processed consumer complaints. After only three months in operation, the Center had resolved complaints involving over $3300, and by the end of the school year over $11,000 worth of money and merchandise had been returned to consumers as a result of their efforts. A noted reporter from a major TV network visited the school and taped an interview with the students. In learning about consumer law, the class had the help of the Attorney General's office and of a third-year law student. Specifically, the Center provided counselling on consumer fraud, channeled inquiries to appropriate agencies, distributed pamphlets on consumer law, helped people to fill out complaint forms and forwarded them to the Bureau of Consumer Frauds for processing, acted as an intermediary between consumers and local stores in regard to complaints, and gave information on sources of help in case of medical or other emergencies. Its work is best summarized by Attorney General Lefkowitz who said: "The outstanding results obtained by these students . . . is ample proof of the dedication and community concern of today's youth when confronted by a worthwhile challenge."

ELIZABETH FERGUSON, CAROLYNNE VOURNAZOS and ALICE M. YORK of *Portsmouth High School, Portsmouth, Ohio*, combined English and economics in their ninth-grade remedial reading classes. Lessons on vocabulary and grammar were related to the chapters of the book *Life on Paradise Island* by W.H. Wilson and Roman Warmke (Glenview, Ill.: Scott, Foresman and Company, 1970). They also prepared a workbook which included activities for vocabulary development, such as crossword puzzles and anagrams. A simulation called "Econograms" was developed. The students learned about recession, inflation, deflation, taxes and other economic issues, facts, concepts and problems.

CHAPTER FOUR

Sports and the American Economy

A Nongraded Minicourse for High School Students

David Norflus

John Dewey High School, Brooklyn, New York

Introduction

Programming is somewhat unique at John Dewey High School in that the school year is divided into five cycles, each of which has a duration of approximately seven weeks. Classes are heterogeneously grouped and nongraded, and meet four times per week, two of the class meetings being scheduled for one hour and the other two meetings having a duration of 40 minutes.

"Sports and the American Economy" had been prepared during the summer and was subsequently offered during Cycles III and IV. Approximately 300 students signed up for the course during Cycle III but, because of logistical constraints, only four classes of 35 students each were scheduled. The overflow was absorbed in the "Sociology of Sports" course which was developed as an off-shoot of the economics of sports program. Most of the students who selected the course during Cycle III were boys (75 percent) and had an interest in athletics. Students were equally divided among grades 10, 11 and 12. Included in the course were a number of students representing minority groups who were particularly interested in sports both as participants and spectators. Otherwise, the four classes were typical of the student body at John Dewey.

During Cycle IV, two cooperative education classes were scheduled in the "Sports and the American Economy" course. At John Dewey, cooperative students attend school one week and work on salaried jobs the next. Unlike students who elected the course during Cycle III, many of the students in the cooperative program were placed in the economics of sports program. Most of them were not interested in sports. A fairly large number of the students assigned to the course during this cycle had a previous history of poor class attendance and did not have a particular interest in athletics.

After teaching economics for many years, we had concluded that many students were disinterested and bored, and could not relate the content material and methodology traditionally taught in economics courses to "real world" situations. In the economics of sports course we tried to make economics come

81

alive and realistic to our students. We did not water down the economics course but rather attempted to teach economics through sports. We regarded sports not as an end in itself, but a catalyst useful in teaching economics. It was seen as a means to an end—the teaching of economic principles, laws, concepts and understandings.

Courses in microeconomics need not be confined to sports. Many other possibilities exist, including the arts, war and education, to name a few. Topics included in the sports program, such as inflation, distribution of income and the marketplace, can be applied to each of these. We strongly believe that what we have attempted in sports can be duplicated in other aspects of American life and, thus, can be exploited to make economics come alive to students. By bringing reality and relevance to the subject of economics, we feel that we have been able to solve the problem of inadequate interest and motivation. Students learn to apply economic analysis questions about why prices increase, why jobs are difficult to obtain, why shortages exist and the like. Students, most importantly, become aware that the economics of sports has carry-over value to everyday living.

Because of the relatively new and unique characteristics of "Sports and the American Economy," we contacted and conferred with college economics instructors, as well as coaches, athletic directors and teachers at the secondary level to gain additional input to the program. Team planning proved to be an important aspect of the course, as did student participation and administrative assistance. A problem relating to course development was that of obtaining teaching materials. Eventually, we culled much of our resource material from newspapers and magazines. We also called upon community resources, including a newspaper representative who discussed with students the many areas within a newspaper which may contain relevant articles.

As the course was presented, students were able to analyze issues in sports, and they developed the ability to relate these issues to general areas in society. The issue of monopolistic practices in professional sports has its counterpart in general business; the question of a professional team leaving a particular city is quite similar to a large enterprise leaving New York; attracting a new professional team is almost identical to a city's attempt to attract a new business.

Course of Study

This course is a pioneer effort in the teaching of economics around a sports theme for high school students. Its aim is to take a microeconomic look at an important segment of the U.S. economy in order to provide young people who have expressed an interest in athletics with an in-depth analysis of sports as seen through the eyes of the economist.

The aims of the course are stated through a series of questions which topically outline the course content. Each question includes objectives, suggested activities and assignments. The 28 questions listed were broken down as follows: the first, introductory, question was, "Is the American sports industry a good reflection of our market economy?" To answer this question, students learn about price determination as it relates to the various degrees of competition found in the American economy. Selected readings, ranging from Adam Smith to Bernie Parrish, were suggested for students.

The next four questions, Nos. 2 to 6, focused on the effects of the profit motive in sports, prediction of economic success of professional sports franchises, economic concentration, and the role of government as a regulator in professional

sports. To deal with these issues, students analyzed the profit motive and how attempts were made in the American economy to maximize profits through such devices as corporate concentration and exclusive markets and franchises. Government regulation, designed to insure a competitive, nonmonopolistic economy and its role in professional athletics, became an obvious extension of the analysis of profit maximization. Job security and the question of collective bargaining in professional sports were discussed in topical questions Nos. 7 to 11. The controversies over salaries for professional athletes were studied in question No. 12. Wage theory and the concept of economic rent were key points included in the analysis of this question. Related to salaries of athletes was question No. 13, which focused on wage discrimination as it relates to male and female athletes.

Inflation, problems related to increasing costs of operation of professional teams, raising funds to finance the U.S. Olympic Team, the economic crisis facing high school athletics, and high priorities assigned to athletics were studied in questions Nos. 14 to 18, the last question in this cluster asking whether profits forthcoming from sports should be allocated to the general operating funds for the schools. Externalities of professional sports as "spillovers" impacting the local economy were studied in Nos. 19 to 22. Whether the Yankees should remain in New York and to what degree sports spur new industries and promote economic development were studied in this group of questions.

Questions Nos. 23 and 24 discussed the relationships between sports and environmental energy concerns. Whether sports provide a boon or bane to American society was studied in question No. 25, and the issue of gambling was discussed in No. 26. The role of television and its economic significance for professional sports were discussed in the next question, and the final topical concern, whether sports constituted a growth industry, was developed in question No. 28.

Each of the topical questions was developed through a series of lesson plans. An example of a typical plan, for the purposes of this abstract, is included.

Topic No. 12: How Much Is an Athlete Worth?

Objectives: To analyze the factors which determine wages in the U.S. economy; to read and interpret data upon which an athlete's salary is based; to examine and compare salaries in selected occupations with salaries of professional athletes.

Motivation: List several occupations on the chalkboard, e.g., carpenter, teacher, computer operator, registered nurse, policeman, stenographer.

Ask: Which of the people above would you pay the most? On what basis did you make your decision? (List student criteria for determining an individual's salary.)

A. Performance (productivity)
B. Supply and demand
C. Competition
D. Industry scale
E. Franchise profitability
F. Resources of the employer
G. Risk and duration of the job
H. Seniority

I. Cost of living
J. Popularity
K. Intangibles (life-style, etc.)

The teacher discusses theories of wages, rent, and marginal productivity.

Ask: Do you think your formula is applicable to an athlete? Why?

Show Transparency 1: Headlines pertaining to athletes' salaries

"Pele Signs Multi-Million Dollar Contract with Cosmos"

"Tom Seaver to be Highest Paid Met"

"Nameth Rejects $4 Million W.F.L. Offer"

Ask: Are these athletes worthy of their salaries? On what do you base your judgment?

Let's look at the problem more closely. (Transparency 2: Factors determining a player's salary. Students study the transparency.)

Ask: Which player would you pay the most? Why?

Should the principle of age enter into your decision? Is experience the most important criterion for an athlete's salary? How do the salaries of athletes compare with the occupations listed on the chalkboard? Should an owner consider a man's family situation in salary negotiations?

Summary: It has recently been said that no matter what an individual does, it is performance (productivity) that determines an individual's salary. Do you agree?

Ask: Should computers determine an athlete's salary?

Application: In the future, inflation will become a key factor in determining an athlete's salary. Do you agree? Do you think that high salaries are destroying professional sports? Should we pay our teachers on the same basis we pay our athletes?

Developmental Activities

A wide variety of activities, materials, approaches and methods were implemented in this course. For the purposes of this publication, we shall describe only a brief sample.

In addition to using some of the standard high school economics textbooks, we put together our own resource booklet which consisted of articles taken from the various sections of the newspaper: sports, financial, obituary, editorial page, front page, etc. The newspaper articles were used in a number of ways, including class reading, motivational devices, homework assignments, student projects and term-paper assignments. We developed a series of transparencies on graphic materials obtained from newspapers and magazines, and used these in our classroom discussions. We also developed an elaborate series of activities using cartoons related to sports. Students evaluated each news item as it pertained to the study of economics.

One of our students developed a simulation game which was designed to analyze the financial problems faced by professional teams. Based upon an initial

start-up figure of one million dollars, and estimated costs of operation of $900,000, covering salaries, travel expenses, etc., teams earn profits or incur losses dependent upon team wins and losses as determined by tosses of dice.

Students projects were included as course requirements. Each student was a member of a team responsible for investigating a current issue in the economics of sports. Each team was expected to address a current policy issue in professional athletics and analyze it from the point of view of an economist. Suggested topics included: the FCC ruling that home teams must lift TV blackouts if all seats are sold 72 hours before game time; the New Orleans Superdome and whether local and state governments should subsidize professional sports; Joe Kapp vs. the NFL reserve rule; and equal funds for women's athletics.

Other activities in the "Sports and the American Economy" course included the publication of a class newsletter called the *Sportspage*, guest speakers from the community, observation and critiquing of TV programs, extensive development of vocabulary, and the preparation of independent study kits, designed to allow students to take the course without mandating classroom attendance.

Evaluation

Numerous evaluative techniques and procedures were used to assess the strength, weaknesses, student attitudes, and overall merits of the course. In addition to feedback from students, outlines and materials for the course were sent to a number of college professors who were involved with similar programs to get their evaluations. Some of the evaluation activities were:

1. Development of a survey to assess student attitudes through a pre- and posttest procedure. Students responded "Agree," "Disagree," or "Undecided" to a series of 25 statements. Computer tabulations were made to determine the degree to which students continued to agree, disagree or were undecided as measured by the postcourse survey. Results were summarized for the entire student body enrolled in the course, by sex, and by student program (normal program vs. cooperative program). Examples of statements designed to measure student attitudes prior to and after completion of the course were: There is a need for professional athletes to unionize. A winning team will always make money. New York City should not have spent $60 million to renovate Yankee Stadium.
2. Administration of teacher-made examinations. Student success in the "Sports and the American Economy" course was equal to or greater than that in 13 other courses in Social Studies offered during Cycle III. (Of the 133 students enrolled 84 percent passed; of the students who were retained, 80 percent was because of excessive absenteeism.)
3. Utilization of an evaluation model designed to measure verbal interaction in response to teacher questions. Categories included memory, cognition, and divergent, convergent, and evaluative responses.
4. Student feedback forms were used asking students to respond to 11 questions. Evaluations from regular classes, as well as cooperative classes, were overwhelmingly positive.

Conclusion

"Sports and the American Economy" is a pioneer effort at John Dewey High School to teach economics thematically to social studies students. The aim of the

minicourse is to teach economics and economic analysis by viewing the American sports scene through the eyes of the economist. In short, sports is the means, not the end.

Sports are interesting to young people. Many are veritable sports encyclopedias but prior to their election of the minicourse they rarely thought of their command of sports facts and figures within an economic framework. The teachers at John Dewey did not "water down" the course, rather they used sports as the vehicle for sophisticated economic concepts and understandings. By allowing students to use their sports experiences and jargon, we were able to teach concepts, philosophies and tenets which formerly would have been learned with great difficulty. Now, packaged in sports lingo, they were eagerly received, and in talking the students' own language we touched on activities and literature (sports pages) which were a part of the lives of most students.

The Economic Community

Activities for Grades Eleven and Twelve

Mrs. Shirleen S. Sisney

Ballard High School, Louisville, Kentucky

Introduction

In our complex, industrial society there is a strong, ever-growing need for economic understanding. Effective teaching of economic principles and concepts must be refined to meet this need, yet educators at all levels find it difficult to interest students in anything other than consumer economics, at most. Although economic news dominates the media and students can feel the direct effects of current economic situations, the study of economics remains an area that many students misunderstand.

This course was designed to organize and implement activities that stimulate interest in the study of economics and, at the same time, develop a theoretical and conceptual frame of reference necessary for objective and rational analysis of current economic problems. The activities that were developed attempted to relate what the student knows and understands to economic theory in such a way that the student is oriented and motivated to study economics beyond the realm of this course. Experience gained from the teaching of economics from a student-involved

perspective revealed that the students were highly interested in such an approach and, as a result, seemed better to understand and appreciate economics.

The project was divided into four major activities: the Inflation Seminar, the Economic Community, Group Studies of Economic Problems, and the International Trade Simulation Game. Although all four activities were integrated into the course, each activity could stand alone and be adopted in other teaching situations. Although each activity could be a project itself, all activities were designed to attain the overall goals of the teaching unit.

The four major activities utilized in this course were designed to improve economic problem-solving skills and rational, objective thinking skills of the students on an individual as well as on a group basis. These methods were not intended to replace a textbook study of economics, but rather to supplement and enrich it. In all four activities, textbook readings and related assignments were used to introduce and support the activities. These developmental activities gave students the opportunity to apply what they had learned from textbook readings and class discussions to realistic situations included in the course activities. Through this technique, students not only learned to apply what they knew but were able to see for themselves what they had failed to understand and, therefore, saw the need for further instruction and study in those particular areas of economics. Any of the four activities can add an extra dimension of student involvement and, accordingly, increase student interest in economics.

All four activities were completed over a 12-week period but, depending upon the desires of students and teachers, could be varied both in the selection of activities and length of time allocated. The 12-week schedule allowed one week for the introduction to economics, discussion of the problem of inflation, and the selection of seminar speakers. Assignments of students to groups studying particular economic problems were made at this time.

The Inflation Seminar was conducted during weeks 2 and 3. During the fourth week, the regular pattern of textbook study and related assignments was resumed; papers on the Inflation Seminar were completed, graded and returned; and the groundwork for the second major activity, Economic Community, was laid. The next six weeks were planned to provide 45 minutes of regular classroom work and 15 minutes of Economic Community on Monday through Thursday. On Friday, the entire period was allocated to the Economic Community Simulation. The International Trade Simulation was carried on during week 11, and the final week was scheduled for the Evaluation Boards of Group Studies Project.

Developmental Activities

This portion of the abstract briefly describes and develops the total project. The reader is advised to view a videotape which was produced on the program. The available tape best communicates and illustrates the developmental and motivational aspects of the four course activities, as well as serving as a summary of the total program.

For the purposes of this publication, relatively brief descriptions are provided for three of the four major activities. The Economic Community activity will be more completely described.

The first activity, Inflation Seminar, included several initiatory techniques designed to arouse student interest. Theories of some of the "Doom Economists" were presented and discussed. Students selected resource persons to serve as

speakers during the program. Blue chips were introduced as the basic currency to be used in the next activity, Economic Community, and were awarded to students for their participation in class activities, including asking good questions of the speakers. During the culminating state of the activity, students were awarded chips by the teacher as determined by her evaluation of student papers. Following the participation of prominent community leaders who addressed the two economics classes, students were able to combine the practicalities of the inflation problem with the analysis and application of economic theory.

In an effort to get the students to integrate practical economics with theory, the Economic Community, a simulated economy, was developed. The objective of the activity was to get students to transverse the path from the concrete, simulated economy to the application of abstract concepts of economic theory. An important and natural by-product of Economic Community was an enjoyable, constructive introduction to the real world of economics.

On the first day of Economic Community, blue chips representing money earned by students through their inflation papers were distributed. In addition to the range of 8 to 20 chips distributed to each student, chips were distributed to students for having asked particularly analytical questions of speakers who had addressed the classes. Records were kept by the teacher of all chips which had been distributed.

Following the distribution of chips, a detailed explanation was given as to how the chips would form the basis for developing an economic community within the classroom. Items in the room were used to represent aspects of the real economy, such as chairs, representing homes; bulletin boards (the media and advertising); doorway (transportation); heat and light (utilities); a group of five chairs (residential real estate); and 4 x 4" squares (commercial real estate). Each of the classroom items was auctioned, the high bidders gaining ownership. The revenue for the auction (blue chips) was deposited in the government treasury.

Rules and regulations were distributed to all students advising them of in-class economic community details. Applications were submitted and interviews completed to fill the positions of treasurer and accountant. Accordingly, salaries in blue chips were paid. As students established businesses and sold their respective goods and services, the community developed and economic growth increased. As students made business deals, bought and sold goods and services, paid taxes, and made policy decisions, the economic health of their individual enterprises and of the economic community in general was affected. The reader is advised to view the videotape which elaborates on the Economic Community Simulation.*

Initiatory, developmental and culminating activities were developed for the International Trade Simulation activity which followed Economic Community. Each student was assigned randomly to one of five countries which made up the game. Students studied the data of their respective countries and established policies determining foreign exchange. Through negotiation and recording inter-country trading agreements, students could improve the economic situation of their particular country. As a result of this activity, students developed a clearer understanding of the dynamics of a worldwide economy and the problem of allocating the world's resources.

---

*The tape and the original report are deposited in the Vernon R. Alden Library, Ohio University, Athens, Ohio.

The final activity, Group Studies of Economic Problems and Evaluation Boards, offered the students the opportunity to explore areas of particular student interest in independent study. Three to five community leaders and/or businessmen with expertise in a particular problem area were used as an evaluation board. This technique allowed students to meet directly with out-of-school resource people to discuss significant problems of the U.S. economy. The quality of student presentation before the evaluation boards demonstrated a developing ability for objective thought in dealing with economic problems. The requirement of verbalizing an understanding of a plausible solution to an economic problem and responding to related questions from an outside authority added another dimension to applying a knowledge of economics. Further information on the group studies activities can be found in the videotape, as well as the student materials.

Evaluation

Form A of the Test for Economic Understanding was administered as a pretest for the 40 students who participated in Economic Community. At the conclusion of the four activities, which had a duration of 12 weeks, Form B was used as a posttest for the same 40 students. In an attempt to avoid teacher bias, the teacher did not examine the questions in Forms A or B until after the posttest was administered. Students scored a mean of 68.6 on the pretest and a mean of 75.9 on Form B. Twelve of the 40 students scored lower on the posttest than on the pretest. But of the 12 who had lower percentile scores, six had percentile scores of 94 or higher on the pretest, leaving a small amount of room for improvement. While the six students had higher raw scores on Form B, their percentile scores were lower. Students who improved the most were those who had been average or below-average students.

In order to gain the greatest benefit from the data compiled through the administration of the pre- and posttests, the teacher broke down the results into categories of questions provided in the *Interpretive Manual and Discussion Guide: Test of Economic Understanding*. Questions on Forms A and B that appeared to measure the same content material were compared by determining the percentage of misses on each form. Comparisons indicated large student gains on questions in the following categories: problems of economic growth and security; changes in aggregate spending; the rate of economic growth, and the framework of the market system. Improvement in comparative test scores in the pre- and posttests was revealed in question clusters which dealt with foreign trade, role of government in economic growth and stability, government control in the use of productive resources, and distribution of goods and services produced in the economy. Data supporting these findings are found in the teacher's report.

A final examination, consisting of questions from the social studies departmental economics test, was administered to all students. The 40 students achieved a mean of 42.6 out of a possible score of 50. Because the test was geared to a thorough testing of economic content material covered in the course, student performance indicated a strong background in economic theory and concepts.

Student evaluations demonstrated increased understanding and confidence by indications of an increased ability to relate economic theory to practicality and practicality to economic theory. The fact that several students expressed a desire to major in economics and the fact that several students undertook individual study projects after the course had been completed, indicate that rational, objective

thinking can be developed around a course which emphasizes the problem-solving approach. All apprehension over the study of economics seemed to disappear as students eagerly established and accomplished challenging individual academic goals during the course. I feel confident that the students left the course not only with a solid background in economic theory, concepts, and understandings, but also with the ability to apply these tools to analyzing economic problems and reaching sound conclusions.

Implementing the Jurisprudential Model in High School Economics Courses

Robert E. Dettbarn
Rich Central High School, Olympia Fields, Illinois

Introduction

Economics courses are often avoided by high school students because they are looked upon as being too theoretical and, therefore, not usable by the student. This is all the more tragic because personal and societal problems require economic understanding if we are to work out solutions. Students need to understand how economic models are put together, know some basic economic concepts, and be able to apply those models and concepts to new situations. Students also need to feel actively involved in the learning experiences they encounter in order to retain, with a degree of permanence, what they learn. With these thoughts in mind, I have used the high school as the subject matter for my economics course.

I teach in a suburban high school located about thirty miles south of Chicago. The economics course is offered as a one-semester elective to be taken in the junior or senior year. The students, for the most part, are average or above average in ability. The material used in my regular classes was also used with a group of below-average readers in a current events class. The differences in understanding between the classes tended to occur in the application phase of the course. Students with lower reading levels seemed to find the concepts to be situation-specific and they felt the ideas could not be applied to new situations. The average and above average students had no difficulty making the applications.

Developmental Activities

The basic strategy in this series is the jurisprudential model which incorporates a set of activities designed for rational analysis and discussion of public policy issues, especially those involving a conflict of equally tenable values. Basic components of the model include (1) analysis of public controversy in terms of prescriptive, descriptive and analytic issues; (2) justification and clarification of one's personal views on such issues; and (3) use of specific intellectual operations for engaging in rational dialogue on controversial issues.* Role-playing and research projects were also part of the activities. This approach allows students to examine value questions inherent in most economic problems. The jurisprudential model also emphasizes the important fact that groups use compromise solutions and consensus fairly often when working out problems. Sound economic reasoning becomes a major factor in problem-solving.

The first part of this learning series relied on students playing the "Rye Market Game." This was used to get them involved and to acquaint them with the basic structure and the functions of the market. The game was also used to familiarize students with economic models and the role that assumptions play in the model-building process. The students were given readings on markets and supply and demand as an extension of the classroom experience. At the conclusion of the readings, students were encouraged to modify the model by changing some of the assumptions. A copy of "Market, Market: Who Sees the Market" was included as one of the materials utilized in the course.

Following this introductory activity, students were given two readings which asked them to examine economic problems based upon their personal experiences ("The Name of the Game is Monopoly"; "The Football Controversy"). Both readings asked students to modify some of the assumptions that were made about the operation of the market as implied in the "Rye Market Game." The readings describe high school incidents which are used as case studies to learn economic concepts, e.g., scarcity, opportunity cost, cost-benefit analysis, etc. Students read the materials and discussed the various questions which were included in the readings. Lesson plans included in the entry provide teachers with flexibility as to depth of treatment and time allocation necessary to master the various concepts.

For example, in the lesson on government regulation a teacher could use role-playing, data collection or interview activities as a means of expanding on the readings. I had the students read the transcript of a hearing on telephone rate increases before the State Commerce Commission. A student committee wrote a script in their own words which was presented to the entire class. Students were impressed with the case presented by the phone company but were disappointed with the presentation made by the consumer groups. This led to a student-directed discussion of what consumer groups can do and, at the same time, another group of students began an investigation to learn why the existing groups did not measure up to the standards set by the class. This group concluded that lack of financial resources prevented in-depth research and the employment of competent spokesmen. On the other hand, the class believed, the phone company had money to hire lawyers and consultants. A third group of students interviewed Ralph Nader, who

*For a comprehensive discussion of the jurisprudential model see Donald W. Oliver and James P. Shaver, *Teaching Public Issues in the High School* (Boston: Houghton Mifflin Co., 1974).

happened to be in the area, and asked him about his proposal for consumer ownership of the public utility. The class also examined the proposal calling for competitive bidding as described in one of the readings. It was decided that the key issue in the controversy was market power and that government's attempts to regulate must take into consideration the concept of power in order to be effective.

The learning activities on the football issue came at a timely moment. The Board of Education was conducting a series of meetings on girls' athletics and related costs of the program. Students from the economics class attended meetings of the Board and, as part of an independent study project, made a cost assessment of the school's athletic program. The report included explicit as well as implicit costs of the program and was distributed to Board members for their review. Board members were impressed with the economic insights presented by the students and eventually took steps to provide equality in the athletic program.

Another group of students surveyed water users of a nearby river to find out about water quality. The investigation conducted by the students revealed that several chemical plants had to treat river water before they could use it. The manager of one plant informed the students that the treatment added 3 percent to the cost of production which, in turn, was passed on to the consumer.

Evaluation

Students took the Test of Economic Understanding, and percentile scores achieved by students in this program were significantly higher than those of students who were not exposed to the jurisprudential model. Specific questions relating to microeconomic issues were answered correctly more often than by those in the control group. This was especially noteworthy since students in the control group had higher SAT scores than did students in the test group. The test group also appeared to take a more personal interest in the issues and problems which had been presented and seemed able to retain the economic content for a longer time period.

Toy Survey: A Community Project in Consumer Economics

Mrs. Shelby Lee Sheehy

Amphitheater High School, Tucson, Arizona

Introduction

Amphitheater High School has been offering a course on consumer education for the past several years. Among the topics included in the full-year program were: Money Management; The Use of Credit; Buying and Insuring a Car; Gyps and Frauds; and Rights of the Consumer. Since its inception the course had gained a most favorable reputation among students, teachers, adults in the community, and the Tucson Consumers' Council.

During the past year, a six-week period was allocated to organizing and carrying through all the elements of a toy survey in the community. Originally, I had been contacted by the Tucson Consumers' Council to assist them in conducting their annual toy survey. The major activities of the project consisted of making a comparative price study and analyzing toys from a safety standpoint. My first experience with the survey enabled my students in home economics to participate by having them work with survey forms, compiling statistical data, and examining final conclusions drawn from the study. In 1974 I was again asked to work on the project. As a consequence I requested permission to include my students in all aspects of the survey. Because the students had proven their ability through their performance in the previous year's project, they were to be actively involved, and the entire study was placed under my direction. In order to accomplish the objectives of the survey, a unit of instruction was prepared and utilized during the project.

Developmental Activities

In order to maximize the educational potential inherent in the toy survey, a unit covering eight weeks of work of instructional activities was prepared. Overall goals of the project were: to improve communication skills, which included speaking, writing and listening; development of computational skills; and increasing and developing concepts, understandings, terminology and vocabulary in economics. Each of the broad outcome goals was translated into process activities. Some examples were: collection and comparison of pricing data; reading and "translating" warranties; investigating cost factors involved in the manufacture and retailing of toys; analyzing advertising techniques; and examination and comparison of sales techniques.

The first major activity in the project was that of selection of the toys which were to be used in conducting the survey. After reading through newspapers, magazines and sales catalogs, the students selected 16 toys which were identified by name of manufacturer, name of toy, model and serial number. The list was duplicated and a form was developed to enable all students to compile information needed for conducting the comparative price survey.

Class discussions and student assignments were focused on toy selection and toy safety. Following written and oral reports, students prepared articles for future release to newspapers. Several field trips were planned and conducted, allowing students the opportunity for on-site compilation of pricing data. Prices were listed for all stores visited. Precautions were taken to insure accuracy in compiling the data through a spot-checking technique.

After the pricing information had been obtained from the various stores surveyed, the class was organized into several groups and made responsible for specific aspects of the project. The first group computed the pricing data by using ten-digit adding machines and calculators. The second committee wrote summaries on the selection and safety aspects of toys. Another group had the task of writing scripts for a videotape program describing the survey; the fourth group had the job of listing toys not recommended for one reason or another.

The data on pricing obtained from the stores surveyed were organized by listing highest price, lowest price and average price for each toy, as follows:

Toy	Average Price	Highest Price	Lowest Price
A	$12.87	$17.79	$8.99
B	9.44	14.80	6.89

On a second form, each store included in the survey was listed. Four columns of information were listed, which included:

Store	No. of Toys Available	No. of Toys Available Below Average Price	No. of Toys Available Above Average Price	Percent of Average Price
Store X	14	14	0	74
Store Y	10	0	10	120

"Percent of Average Price" referred to the total prices of the items available at that store compared to the average prices for the same toys. For example, all the items available for purchase at Store X might total $103.38; however, average prices for the same items totaled $139.88. Therefore, Store X had prices which were 74 percent of the average prices compiled for all items on the toy list.

The final draft of the survey was sent to the Tuscon Consumers' Council for their review and verification. Following discussions between the Council and the students who had conducted the toy survey, copies were sent to local newspapers, radio and television stations. Considerable publicity and coverage was afforded to the student-conducted project by the media.

Evaluation

Evaluation of the learning activities was determined by administering a posttest at the completion of the project. Students were expected to answer questions with

a minimum of 60 percent accuracy in order to pass the test. Examples of questions included in the posttest are listed below:

Give reasons for the variation in prices of the items surveyed.

How does demand affect sales?

What is the relationship between prices and quantities demanded of each toy?

How does advertising affect the demand for toys?

List several ways in which advertising affects prices.

How can a manufacturer tell how effective his advertising is?

What is the difference between the manufacturer's suggested retail price and the price listed on the item at the time of the sale?

How can those stores charging the least prices for toys expect to make a profit?

How do discount stores maximize their profits? How do specialty stores maximize their profits?

What is the importance of competition in the market?

Is information a scarce resource? Explain your answer.

Test results revealed that students attained higher scores than in any other test during the year.

Other outcomes of the toy survey indicated a most successful educational project. Every student became involved in the activities and each felt a responsibility to the rest of the class for getting his part done well. Every student appeared to be eager to do all the work involved because he saw the project as something that would be worthwhile not only to himself and to me but to the entire community. He knew that the results of the survey would be published and that he was resonsible for insuring that the results were correct. In addition, every student took pride in conducting the survey and seemed anxious to share the findings with the general community. Every student who participated in the project became an honorary member of the Tucson Consumers' Council.

Because each of the goals established at the outset of the project had been achieved, the toy survey attained unusually high levels of success. When the final phases of the project were completed and interviews conducted, the students knew that they had done a fine job.

APPENDIX TO CHAPTER 4

Good Ideas in Brief: High School Level

WILLIAM R. CHEMERKA of *Madison High School, Madison, New Jersey*, used rock music as the device to teach economic terminology, principles and concepts in his American History and Economics courses. Capitalizing upon a fundamental student interest in rock music and records, students related sales of particular "singles" to the phases of the business cycle. As new records appeared on sales lists, students plotted the data on graphs. As the sales went up on the chart, the students identified this stage as "recovery." When the record hit its highest peak, the students called the phase "prosperity." As a record became number one on sales lists, the term "boom" was used. When sales dropped off the students made a parallel to "recession" and, eventually, as the record fell to the lowest point prior to going off the sales charts, students labeled this phase "depression." The interest generated by this activity led into a further discussion of the record industry; and concepts such as specialization and division of labor, circular flow of economic activity, the costs of producing records, the role of advertising and exposure, and price determination through supply and demand were presented. As a concluding phase of the unit of instruction, career opportunities in the music and record industries were researched and discussed by the students. The unit was concluded with a thorough analysis of income distribution as it occurred in the rock music industry.

JEROME H. MULDREW, Chairman of the Social Studies Department, *Central High School, Little Rock, Arkansas*, developed a unit of instruction on Black Capitalism for his classes in economics, international relations, sociology, and geopolitics. The major point of inquiry in the unit can be summarized in the following question: Can Black Capitalism overcome its limitations and become a catalyst in the achievement of black economic development? A circular flow diagram was used to illustrate how productive resources, with emphasis upon human capital, supported by government assistance, result in output from black enterprises which, in turn, expends portions of earnings to government in the form of taxes, savings to financial institutions, goods and services to the market, and, most importantly, income to job holders. Completing the circular flow diagram, financial institutions invest in black enterprises and "make loans" with guarantees from the Small Business Administration for further business expansion. Finally, black enterprises earn profits from the market, a portion of which is reinvested for further economic development. A key statement in the unit asserts that it is the responsibility of the American economic system to extend itself beyond the basic question of scarcity in order to examine the potential utilization of human resources as related to major social, economic, political and cultural changes occurring in contemporary society.

PATRICIA COSSABOON and BETTY PULEO of *Cardinal Mooney High School, Rochester, New York*, constructed a three-stage game on the principles and

practices of constructing a sound personal budget. Designed for students enrolled in an Office Simulation Program and who were about to seek full-time employment, the steps involved in rational budget-making were introduced and discussed. Key concepts were illustrated through modified income statements and through a number of definitional terms such as net purchasing power, disposable income, standard deductions, and priorities. By relating income earned (as indicated by randomly drawn cards) with expenditures, students were introduced to the concepts of scarcity and opportunity cost. In stage I of the game students were introduced to the need for rational personal budgeting. In the second stage of the game the participants were provided the opportunity of analyzing budgets prepared by other students and were provided activities whereby priorities on possible expenditures had to be determined. In the final stage, as a culminating activity, students prepared personal budgets based on mastery of those understandings and principles of budgeting discussed in the initiatory and developmental stages. Four basic economic concepts that were covered in the activities of the game included: freedom of choice—with the understanding that budgeting can help a person to plan for discretionary expenditures; opportunity cost—develops the understanding of real cost, or what is sacrificed when a purchase is made; income and expenditures and their interrelationships; and the conflict between private industry and consumer interests.

LES R. DEABEY of *Fenton High School* in *Bensenville, Illinois*, organized a consumer economics program which went considerably beyond the constraints of time inherent in the regular classroom program. Because of concern for providing information on consumer issues and problems, students in consumer education courses at Fenton High School organized F.A.C.T. (Fenton Action Consumer Team). F.A.C.T. was established on a volunteer basis, and participants in the cocurricular program were provided the opportunity of combining their experiences in the market place with their desire to disseminate information on consumerism. Through the publication of a student newsletter, *The F.A.C.T. Is*, the establishment of a Consumer Information Resource Center in the school, and the organization of a Community Action Line, students undertook to (1) promote consumer education and information for other students, faculty and residents in the high school district; (2) communicate to consumers of all ages the current consumer problems with suggestions for remedy; and (3) inform the general public that the young consumer is concerned about the America of tomorrow. As students gained experiences in the various activities undertaken, they studied key economic concepts including the fundamental law of scarcity; opportunity cost, the role of the government in consumerism, the nature of the U.S. economy; price determination in a market economy, inflation, money, credit and banking. As a result of publicity, membership qualifications, the adoption of a constitution and a set of bylaws, and a series of activities which were consumer-oriented, F.A.C.T. became firmly established as a community service organization.

GRACE W. SHAFFER of *Duncan High School, Duncan, Oklahoma*, developed a unit of instruction which relied upon the news media as the primary approach to

motivate an understanding of basic economic concepts with her students. By using such sources as newspapers, magazines and trade publications, students not only obtained an overall understanding of problems and issues in the economic world, but received additional bonuses which included: increased proficiency in reading skills, familiarity with newspaper and magazine lay-outs, and understanding and analyzing current events. In the nine-week period during which the unit was presented, students discussed and completed activities relating to money and inflation, unemployment, the energy crisis, the farm problem, federal spending, health, education, and welfare issues, and taxes. In addition to those activities planned around the media, resource persons from the community, and films and library facilities were used. Each student was responsible for composing an economics booklet which included news articles, cartoons, magazine covers and articles specifically related to economics problems discussed during the unit. As a culminating activity, all students were responsible for the selection, preparation and presentation of three topics which had been discussed during the course. At the conclusion of the program, during the ninth week, students exchanged and critiqued the economics booklets prepared by each of the students. Evaluation procedures included a final examination and an activity whereby the teacher selected for a student a news article in which the student was expected to: circle economics words and terminology, identify economic concepts presented, and explain, in a well-written paragraph, how and why the article was related to the study of economics.

LEONORE H. BURCKELL of *Washington Park High School* in *Racine, Wisconsin*, after having discussed the effects of restricted competition on the consumer, found that her students believed they would not engage in collusive practices, legal or extralegal, if they were in positions of economic influence. She developed a simulation on cartel formation as a lesson to illustrate the advantages of cartellization in the immediate period and the inherent weaknesses of cartels in the long-run. The goal of the simulation is profit maximization. Each student was assigned an oil-producing country and determined his or her output (X) individually and secretly, for a given year. Output figures for all nations were collected by the teacher who added them together to determine aggregate output for the given year (Q). By using a demand function, the market price for oil to clear the market was determined. At the same time, each player, using a cost function, determined his nation's cost of producing X barrels of oil. After the teacher determined and announced the market price of oil, each player calculated his country's Total Revenue ($TR = P \times X$) and Total Profits for the year ($TR - TC = Profit$). The game may be played for as many rounds (years) as desired. Obviously, the winner is the player whose country has amassed the greatest profit during the entire game. Students learn that as aggregate output (Q) increases and prices and profits fall, the incentive to collude becomes attractive in order to maximize profits. Students eventually discovered the inherent weaknesses of cartels in the long run as incentives for individual members to cheat on quota agreements occurred. Pre- and posttests were developed, and test scores revealed that not only did students learn economic theory but they had a much better understanding of the complexities of the energy crisis and the pricing policies of OPEC nations.

CHAPTER FIVE

Teaching Economics Through Art History

Virginia Lee Owen

Illinois State University, Normal, Illinois

The Problem

Traditional methods of teaching introductory college economics emphasize cognitive skills. The methodology is analytical and often abstract whether presented mathematically or in the recently popular problems approach. Neither approach concerns itself with the affective dimension of learning. Although this may be appealing to business and mathematics students, it is frequently alien to students of the fine arts and humanities. Often these students avoid enrolling in economics, and are reluctant learners if avoidance is impossible. In response to this situation, I set out to use materials from art history to illustrate and amplify economic concepts. Two hypotheses were advanced: (1) the inclusion of art history materials in introductory economics would improve student attitudes and interest in the subject matter, and (2) the inclusion of art history materials in introductory economics would enhance the understanding of economic concepts. The rationale for the first was that the relevance of economics to disciplines far afield would be demonstrated. The rationale for the second was that the art history materials would provide a visual reinforcement of economic concepts in an essentially noncognitive way.

The Setting

The use of art history materials in teaching economics principles came in the fall semester of 1974. The course was Principles of Economics I which included elements of micro- and macroeconomics in an introductory way. No prerequisite exists for this course. The majority of students take this course as a requirement of the College of Business. The others come from various disciplines (social sciences and mathematics, mainly) and enroll for general education credit. Virtually no declared economics majors enroll. Most of the students are freshmen and sophomores. On the basis of the Test of Understanding in College Economics, hybrid form, given as a pretest, these students ranked behind the national average in

economic understanding. The pretest mean on the Hybrid TUCE was 11.1. The means for the TUCE from which part of the hybrid is taken are around 13.5.

The section of the course used for experimentation was taught in a large lecture hall and enrolled 251 students. The hall was equipped with an overhead projector as well as multiple slide and movie projectors. The semester's work was divided into three segments. Part I included comparative economic systems, elements of supply and demand, and a verbal elementary overview of market structures. Part II included government finance and national income determination. Part III included policy applications of both macro and micro as well as elements of money and banking and international economics. Thus, the semester was almost evenly divided between macro and micro concepts. The main text was *Economics: A Synergetic Approach* by McCarney and Owen. Supplementary reading was suggested in *Economics and the Public Interest* by Gill.

The Procedures

The use of art history materials came in Part II (macro analysis) and took the form of three slide presentations. The first compared the development of Florentine painting with Siennese painting in the fourteenth and fifteenth centuries. Florentine painting shows a development from the highly skilled medieval painting of Giotto to the often secular, realistic Renaissance works of Botticelli. Simultaneously, about fifty miles away, Siena housed the last flowering of medieval painting with its artists Sasseta and di Paola refusing to adopt the advances of the Florentine Renaissance. Since the artists of both cities were dependent upon their patrons for livelihood, I used this comparison to illustrate the power of one buyer in the market to direct the use of resources. As such it served as the introduction to government finance. Utilizing a split screen and two projectors, slides from contemporary artists in the two cities were shown side by side. (The split screen is not essential to the presentation. I have subsequently shown these same slides in sequence, alternating from one city to the other.)

A second slide presentation traced the development of palace architecture. It was used to illustrate various consumption hypotheses. The palace at Versailles was used for the absolute income hypothesis and conspicuous consumption. The residences at Wurzburg, Germany, and Vienna, Austria, were used to illustrate the relative and peak income hypotheses, respectively, as rulers tried to achieve the status achieved by Louis XIV at Versailles, even with declining state revenues.

A final slide presentation was used as the summary for the macroeconomic impact of government spending on the economy. Using gothic cathedral building as the example, this presentation traced employment and income effects in the thirteenth century as a result of cathedral construction. Slides demonstrated the size of these undertakings and several technological architectural innovations as the result of this concentrated expenditure.

In order to test the effectiveness of these teaching aids, reliance was placed on existing tests. The Hybrid TUCE was administered as a pretest and posttest. The questions on the exam were subdivided for analysis into micro and macro sets. In addition to overall measures of absolute and percentage gains on the Hybrid TUCE, these same measures were calculated on the subsets to determine if there were differential improvements on micro and macro sections. In addition, a departmental course and teacher evaluation form was administered at the end of the semester. This is a twenty-question form with an optional open-end request for comment on

It seems that while Florentine painters were creating the Renaissance, Sienese painters were going nowhere but going there with ever increasing skill and elegance.

How can we explain such phenomenal differences? Since the answer cannot lie in ignorance of each other's work, geography or nationality, cultural heritage or religion, a starting point for the answer may lie in the buyers of these paintings. Artists lived then on the incomes provided by their patrons—and the wealthy patrons of Florence were very different from the wealthy patrons of Siena. Florentine wealth was commercial wealth. The major family, the Medici's, were international bankers. Widely traveled, they were sophisticated and urbane, acquainted with a variety of cultures. Sienese wealth was agricultural wealth. Many patrons had never been but a few miles beyond Siena's limits. They were conservative and interested in the traditional. Given these differences in preferences, it is not surprising that the artists painted differently. They were selling in different markets and they differentiated their products in accordance to the differences in those markets. We expect that to happen in markets in general. The unique feature is that such differentiation could last for 200 years in such geographic proximity. Economics can help us to understand that, too, for the markets weren't the traditional ones we discuss in our textbook examples: There were not many buyers and sellers. In essence there was one major buyer in each market. So long as those buying families retained constant tastes, the paintings reflected the two families' differences.

The economic forces which helped to shape painting in the early Renaissance exist today. Often a buyer dominates today's market; his tastes will dictate what is produced. Resources will be allocated in accordance with his preferences. If a seller wishes to sell, he must accommodate the wishes of the dominant buyer. Even if the buyer is not the sole purchaser of a product, so long as his share is large, the seller will be well advised to adjust to his desires to some extent. Central governments often act in this capacity of dominant or important buyer. By making large purchases they can direct the use of resources without controlling firms directly. The great thrust toward space exploration and products related to it is an example. Similarly, when federal emphasis and support money to education was on science and mathematics in the late 1950's, offerings in those fields multiplied. As the emphasis shifted in the late 1960's to environmental problems, so did research and course offerings. The market power of the central government is awesome. Like the ruling patrons of Florence and Siena it can alter the composition of output and the allocation of resources within the community. It can impose standards and confine tastes. These decisions affect the people of a society in general. For example, the people of Florence enjoyed developments in painting in their public churches for 200 years which were not available to the people of Siena. A governmental buyer can create these effects even in the context of a free enterprise system. There is little need for the direct controls of socialism. Given such power, it is important for us to be able to examine proposals for government programs intelligently and evaluate their outcomes carefully. To this end our next unit will focus on alternative methods of making such evaluations.

Note: The complete report, with copies of the slides used, can be obtained from the Vernon R. Alden Library, Ohio University, Athens, Ohio.—*The Editors*.

the back. It has been administered for seven years and although statistical norms have not been developed, a relatively long history of data exists for comparison. Two levels of comparison could be made from these data: An internal one—macro (which used the art history slides) vs. micro (which did not)—and an external comparison—this class vs. national averages and other classes taught by me in other semesters. To obtain a control group, the same course was also taught by me in a large section lecture during the spring semester 1974-75. The same lectures notes, course outline, assignments and text were used with the exception that no references to art history were made and no art slide presentations were utilized. This section enrolled 226 students. Its economics background was poorer than that of the experimental group with a mean score on the Hybrid TUCE as a pretest of 9.6. In both semesters students scored slightly higher on pretest micro than macro questions. In order to minimize the Hawthorne effect of slide shows, an appeal for students to enroll in a study abroad program which was illustrated with a travelogue type of slide presentation was presented in Part I of both the experimental and control groups.

The Results

The hypothesis that student attitudes and interest would be improved by the art history material is borne out by the data. The overall rating on the departmental form was the highest I have ever received in a large lecture class with especially higher ratings on questions concerning explanations of subject matter and relevance of material. The ratings were significantly higher in the experimental group than the control group. In addition, over 30 percent of the students wrote favorable comments about the slide presentations in their open-end comments. There were no unfavorable comments about the slides; the majority simply didn't write comments at all.

Another indication of improved attitude is the withdrawal rate. The university has a generous drop policy which allows a nongraded withdrawal until the end of the twelfth week in the semester. The usual drop rate for a large section class is above 12 percent. For the control group (spring semester) it was 13 percent. However, for those students enrolled in the experimental section, the drop rate was 5.7 percent. It seems apparent that students retained interest and motivation beyond the average during this semester.

The second hypothesis that economic understanding would be enhanced by the use of art history materials also appears to be supported by the evidence. The results of pre- and posttests for both semesters are included in Table 1. Although the posttest means are below the national averages (implied by actual norms for Forms I and II rather than for this composite hybrid), the pretest means were likewise behind the national averages. Since the TUCE, Form II, is normally given at the conclusion of a two-semester sequence in which microeconomics is the focus of the second course, the questions on the hybrid from it may create a special difficulty for a one-semester course. A norming process might give a lower posttest mean on the hybrid than on the original two forms. Nevertheless, the absolute gain for the fall of 1974 of 5.4 questions is the average gain on the national norms. The gain for the control group was less than that for the experimental group and the difference was significant at the 5-percent level.

Table 1

	Class			
	Fall 1974		Spring 1975	
Pretest mean (σ)	11.1	(3.63)	9.6	(3.48)
Posttest mean (σ)	16.5	(4.61)	13.56	(3.99)
Absolute gain	5.4		3.96	
Percentage gain	48%		41%	
Gap closing	24.6%		16%	

The macro vs. micro comparison also supports the hypothesis. There was a differential improvement between the two as summarized in Table 2. Running a test of significance of difference of means showed that the macro improvement was significantly greater than the micro at the 1-percent level for the fall of 1974, but not significant for the control group in the spring of 1975.

Table 2

	Class	
	Fall 1974	Spring 1975
Macro		
Mean absolute gain (σ)	3.19 (3.02)	2.1 (2.0)
Percentage absolute gain (σ)	61% (1.15)	48% (.49)
Micro		
Mean absolute gain (σ)	2.13 (2.42)	1.86 (2.21)
Percentage absolute gain (σ)	32% (.635)	47% (.516)

One would also not have predicted such a differential improvement based upon the national norms for the TUCE I and II from which the hybrid is taken since they are very similar.

The value of using materials from the fine arts to illustrate and amplify economic concepts seems apparent from this experiment. The students' academic achievement was aided by slide presentations and their interest and enthusiasm were maintained. On the basis of this experience, I plan to enlarge the use of art history materials in the fall of 1975, and to search for appropriate examples from some other arts.

Micro-Innovations for the Introductory Course

Dennis J. Weidenaar

Purdue University, West Lafayette, Indiana

Introduction

This project consists of a multidimensional approach to teaching, involving the use of a series of micro-innovations bound together by an instructional model. It differs basically from the exotic and technologically oriented capital-intensive approaches which frequently are associated with instructional innovations by emphasizing small or micro-innovations rather than major changes. As an analogy, this project can be compared to a medical delivery system which emphasizes the more mundane approaches such as preventive medicine and clinical aid rather than a program involving the acquisition of sophisticated capital-intensive medical machinery which makes dramatic headlines but saves only a limited number of lives.

The advantage of this approach is that the financial start-up costs are low and its many component parts, though reinforcing, are not dependent on one another.

The components of this project have been developed around a five-phase instructional model which consists of:

1. Planning objectives
2. Assessing entering behavior
3. Designing and implementing activities
4. Assessment of performance
5. Feedback

Woven through these five aspects of the model is a continual emphasis on student involvement. The innovations associated with each of these aspects of the model will be described briefly after the setting in which they are used is presented and the objectives and rationale for the program are described.

The Setting

These innovations have been implemented in the Principles of Economics course (Economics 210). Currently, over 3,000 students a year matriculate in this introductory economics course at Purdue University and over 1,200 of them have attended my sessions this year. The major objective of this course is to enable the students to apply basic economics principles to the choices which confront them both individually and collectively as members of a democratic society.

Economics 210, as currently organized, consists of three 50-minute sessions per week, two of which meet in large lecture halls ranging in capacity from 200 to 500, the third being a recitation-type section of 30 students conducted by a graduate student teaching assistant.

Objectives

1. *Ultimate objective*

The ultimate objective of this project is to aid students in achieving their own personal goals, whatever they might be, by helping them (1) become better decision-makers, decision-makers who are aware of the benefits and costs of their choices, both in the long and short run.

2. *Immediate objectives*

Provide a multifaceted learning experience which will:

a. involve the students in the evaluation procedure.
b. provide the opportunity for students to teach other students in both a classroom and tutorial situation.
c. develop the analytical and communicating skills of students in evaluating real world economic issues.
d. involve the students in helping to improve the teaching skills of the graduate student instructors.
e. introduce reality into the large class setting through simulation exercises.
f. identify students with unusual ability and utilize those skills through activities appropriate to their abilities.
g. identify students performing poorly early in the course so appropriate remedial activities can be provided.

Rationale

The sheer magnitude of the enrollment in this course, as in many college courses, appears to defy attempts to personalize education and to preclude meeting the diverse needs of many students. The use of an overall instructional model, however, has identified numerous areas in which personalization and attendance to the diverse needs of students can be undertaken even in the context of what appears to be "mass-education." Therefore, the rationale for this program is simply: Educational objectives will be more successfully met if the needs and capabilities of individual students are identified and met with a diverse educational program providing alternative approaches to differing needs.

Micro-Innovations Classified According to the Five Aspects of the Instructional Model

1. *Planning objectives*

(Innovation No. 1—Explicit statement and projection of projectives.)

A common complaint aired by students is that they don't know what is required of them in a course. One of the innovations this course has introduced, paraphrasing Robert Mager, is to let the students know where they are going, let them know when they are there, and let them know where they've been.* A set of

*Robert Frank Mager, *Developing Attitudes Toward Learning*, Palo Alto, Calif.: Fearon Publishers, 1968.

objectives is prepared for each lecture and is printed on a transparency which is projected in the large lecture sessions preceding the class so the students will see them as they enter. It remains on the screen during the entire period. (To achieve this and still use an overhead projector in exposition of class materials, the lecture rooms are equipped with two overhead projectors.)

Prior to every class period the objectives are explained and shortly before the conclusion of the class, they are reviewed to see if in fact they have been achieved.†

2. *Assessing entering behavior*

(Innovation No. 2–Precourse evaluation and action based on results)

During the second class of each new semester all Economics 210 students are given a standardized precourse test in economics (the Test of Understanding in College Economics developed by leading economists in conjunction with the Joint Council on Economic Education and The Psychological Corporation). Based on national norms and the norms developed on Purdue students over the past six years, students with very high and low scores are identified for special treatment. Those performing very low on the test are identified for close scrutiny and possible aid. All those achieving a score above a certain level are invited to my office during which their performance is discussed. In most cases they are then given several options:

a. They are invited to attempt to "test-out" of the course so they can proceed more rapidly toward their educational objective.
b. They may take the first course exam and if they receive an A, all other exams are waived but in exchange they must provide 10 hours of tutorial services for students having difficulty with the course.
c. They may take the first course exam and if they receive an A, all other exams are waived and instead the student must prepare a paper which contains an economic analysis of an issue of interest to him or her.
d. Students are encouraged to suggest an option of their own which is subject to the veto of the professor.

(Innovation No. 3–On-going monitoring of performance)

After the first course examination is given the names of all students performing at the A, D or F level are forwarded to the counselling office for special attention. The recipients of A's are commended and encouraged and the recipients of D's and F's are encouraged to seek aid in the form of:

a. Consultation with the professor who may loan them programmed instructional materials.
b. Instructional assistance from the teaching assistants.
c. Tutorial services from the A students identified in the precourse test.
d. Minicourses on audiocassettes designed for this purpose.

3. *Designing and implementing instructional activities*

The instructional activities consist of lectures, games and simulations, student explanations, micro-cases, and written cases. These various techniques are interspersed throughout the semester for variety and depending on the concepts being discussed.

---

†The original report contains several appendices giving examples of objectives, simulations, case studies, review questions, student evaluations and the like. The full report may be obtained from the Vernon R. Alden Library, Ohio University, Athens, Ohio.

a. Lectures
(Innovation No. 4—Provision of facilities to repeat lectures)

All the lectures are taped and made available in the general library for students who missed a lecture or would like to hear it again.

b. Games and simulations
(Innovation No. 5—Simulations involving entire class)

Periodically, games and simulations are introduced to illustrate concepts.*

c. Student explanations
(Innovation No. 6—Student teaching)

Of all the devices used to maintain student interest in a discussion, a very successful one is the use of students as teachers. About once every three weeks, a volunteer is solicited who will work through an exercise in front of the class (300 students) using—usually for the first time in the student's life—the overhead projector and microphone. Recruiting volunteers has always been successful mainly because the attempt is prefaced with the comment that I am really looking for someone who will make mistakes since that is how we learn. Inevitably mistakes are made—the class enjoys it thoroughly, laughing frequently *with* the students, and in the end all do indeed learn.

d. Microcases
(Innovation No. 7—Student participation in economic analysis in the classroom)

The most revealing way to describe this innovation is to lead you through a typical class period using the microcase approach:

(1) Upon entering the large lecture hall, the students will find a microcase displayed on a screen using the overhead projector which is available in each of the rooms in which Economics 210 is taught. At first glance it looks like a complex multiple-choice question.

(2) When the class begins the student will be asked to take 5 to 10 minutes to read the case and select one of the alternative solutions of answers listed. After selecting the alternative, the student must write a paragraph explaining the economic basis underlying his or her decision. A previous assignment from the textbook or book of readings will already have given the student background information useful in making his or her decision.

(3) A student will be randomly chosen to read or extemporaneously explain the basis for his or her choice.

(4) Other students will be asked to add their supporting or opposing perspectives to the original answer.

(5) Each of the remaining alternative solutions will then be treated in the same way.

(6) Students will then be given the opportunity to offer their own solutions in addition to those initially displayed using the overhead projector.

(7) In the time remaining, the professor will identify, correct and clarify the economic principles underlying that day's discussion.

---

*For an example, see Dennis J. Weidenaar, "A Classroom Experiment Demonstrating the Generation of a Market Demand Function and the Determination of Equilibrium Price," *Journal of Economic Education*, 3 (Spring 1972), 94-100.

e. Written cases

(Innovation No. 8—Written cases requiring economic analysis)

An important part of "helping students to learn" involves guidance and experience in making decisions in the face of apparently conflicting evidence. Real learning also involves the ability to represent one's analysis and evaluation of an issue in a way which will communicate effectively to others. Each semester a case study is assigned which helps students to learn these skills.

The case study consists of a set of readings related to a specific issue, e.g., minimum wage legislation. Several viewpoints are represented in the various readings. The student is required to:

(1) summarize the readings in written form.

(2) list and explain the economic concepts useful in analyzing this issue.

(3) analyze the issue, listing the benefits and costs of each alternative, and make an evaluation.

4. *Assessment of performance*

(Innovation No. 9—Review questions *and* answers)

The tests given in this economic course each semester consist of multiple-choice questions. These questions are predominantly analytical rather than factual. To assist the student in preparing for these tests, review questions and answers are distributed prior to every test. These questions are from previous tests. What is innovative about this review accompanying each question is an explanation indicating why the correct answer is correct and, just as importantly, each incorrect choice is also fully explained—providing instant feedback as to why each incorrect selection is wrong.

(Innovation No. 10—Test question analysis)

Since all the test questions are multiple-choice in nature, the services of the test and measurement center are used to identify poorly constructed questions and insure that students are not unfairly penalized in such cases. Hence, our bank of questions is constantly being refined.

(Innovation No. 11—Student involvement in test construction)

Accompanying the syllabus distributed during the first session of the course is a set of guidelines for writing test questions. All the students are invited to write test questions and submit them a week before the test for possible inclusion. If the questions are used or are of a quality comparable to those actually used, that student receives an extra 5 percent credit on his(her) test. If the questions are good, but not quite of the quality required to be used, the student is given a 3 percent credit. This program has proved to provide a useful built-in incentive for students.

5. *Feedback*

Our formal feedback mechanisms are of two kinds: student evaluation of instructors and videotape critiques.

(Innovation No. 12—Joint analysis of student evaluations and videotape critiques)

Our objective in this innovation is to help students to learn by seeking to improve the teaching skills of our graduate student teaching assistants. This is done as follows:

a. Early in the semester, each TA is videotaped as he(she) teaches his(her) class. This first taping is undertaken solely to sensitize the TA and the students to the presence of a video recorder and camera.

b. Midway through the semester the TA's are evaluated, using Purdue's instructor evaluation program. At approximately the same time, each TA is videotaped once again. The videotapes are then critiqued by myself or one of three graduate students selected for this task. The critique consists of a monitoring of the tape so that every 30 seconds the instructor's activities are recorded in terms of:

(1) The teaching strategies being used—lecture, questions initiated by instructor, questions initiated by student, or other.

(2) The stance taken by the instructor.

(a) Verbally—receptive, neutral or unreceptive.

(b) Nonverbally—receptive, neutral or unreceptive.

(3) The material being discussed:

(a) Facts

(b) Theory

(c) Applications

Based on this monitoring, the amount of time the TA spends in each of these modes can be identified. These results are compared to the lesson plan the instructor filled out prior to the class.

c. Based on the student evaluation and critique, one, or at most two areas of teaching weakness are identified and targeted for improvement during the remaining weeks of the term. This "rifle" approach is easier to cope with than a generalized "shotgun" approach.

d. Shortly before the end of the semester, a final student evaluation is conducted and the third and last videotaping is conducted. Any improvement is then identified.

We believe that this program will be of value to both students and instructors since, if successful, it will identify concrete areas of improvement and demonstrate that teaching skills can indeed be enhanced. It is based on a program currently being operated at the University of Minnesota, but modified to meet our needs.

6. *Evidence of Impact*

a. On student learning

There are two levels of evaluation that ideally we would like to undertake to measure the effectiveness of this program. The first level is the cognitive level which deals with such behaviors as recognition, understanding, application, analysis, synthesis and evaluation. The second level deals with the affective domain—the realm of attitudes.

In the cognitive level we have from time to time used the standardized Test of Understanding in College Economics (TUCE) and compared the performance of our students with those of the norming group. Our results are quite favorable.

Econ 210		National Norms	
Pre	*Post*	*Pre*	*Post*
13.23	21.84	13.71	20.52

Considering the fact that our course was structured around large classes while the norming data were not, our results are quite satisfactory.

On the affective level we've tried to obtain information as to the students' attitudes toward Econ 210. This has been done two ways:

(1) Instructor evaluation results. The evaluation compares very favorably with the Purdue norms for two of the most important questions on the evaluation:

(a) Overall this course is among the best I have ever taken.

Purdue Norm	Weidenaar's Score
3.3	3.4

(b) Overall this instructor is among the best teachers I have known.

Purdue Norm	Weidenaar's Score
3.9	4.2

The Purdue norm includes all varieties of classes, large, small, etc.

(2) A survey of the attitudes of the students toward the project shows the following results:

Postcourse Evaluation
Economics 210
$n = 711$

1. Compared to other students you know, now that you have had a course in economics, how would you rate your present interest in economics as a subject?

a.	very high	- 9.7%
b.	high	- 44.3%
c.	average	- 36.0%
d.	low	- 5.9%
e.	very low	- 1.5%

2. Now that you have had a course in economics, how important do you think a general understanding of economics is in today's world?

a.	very important	- 39.2%
b.	important	- 49.5%
c.	of average importance	- 8.2%
d.	unimportant	- 0
e.	very unimportant	- 0

3. Now that you have taken a course in economics and are familiar with its content do you feel that all students should be required to take a course in economics before they leave college?

a.	strongly agree	- 21.7%
b.	agree	- 44.9%
c.	undecided	- 16.6%
d.	disagree	- 11.5%
e.	strongly disagree	- 3.0%

4. Solely as a result of having taken Economics 210, how would you rank your likelihood of taking another economics course?

a.	very likely	- 29.0%
b.	likely	- 30.9%
c.	unlikely	- 25.2%
d.	very unlikely	- 12.0%

5. Solely as a result of Economics 210, I have enrolled in another economics course next semester.

a.	true	- 16.6%
b.	untrue	- 83.4%

6. Relative to other introductory social science courses, e.g., political science, sociology, etc., do you feel you have learned in this semester:

a.	substantially more	- 23.3%
b.	more	- 4.1%
c.	same	- 25.0%
d.	less	- 4.8%
e.	substantially less	- 1.0%

7. I would like to take another course from this professor.

a.	yes	- 81.6%
b.	no	- 15.8%

Of particular interest is the answer to question 5. Almost 16 percent of the students claim they have enrolled in another course solely as a result of Economics 210. Since 711 students were included in the poll, over 100 students responded.

b. On resources, including faculty, funds and space.

This project, although multifaceted does not require substantial new funds. It does, however, exploit fully the teacher-support services now available at many colleges and universities, namely, test-scoring and analysis services, instructor evaluation services, and videotape and projector equipment of the audiovisual department.

Do High Grades Buy Favorable Student Evaluations?

John Palmer, Thomas Romer and Geoffrey Carliner
University of Western Ontario, London, Canada, and
Carnegie-Mellon University, Pittsburgh, Pennsylvania*

Introduction

With student evaluations of instructor effectiveness playing an increasingly important role in the determination of merit pay, promotion and tenure, there is a growing interest in what these evaluations measure. Faculty members frequently voice doubts about using student evaluations, however, because it is not clear to what extent they measure the leniency of the instructors, the amount they taught the students, or the performing ability of those instructors.

Several recent studies show a positive relationship between the grades economics students receive and the evaluations they give their instructors (Kelley, 1972; Capozza, 1973). Similar results have been reported for other disciplines (Murray, 1972) and across disciplines (Nichols and Soper, 1972; Perry and Baumann, 1973; and Reuber, 1974). These results are consistent with the view that instructors "buy" high evaluations (and, they hope, higher pay, promotion and tenure) by "giving" students higher grades. This suggests a tacit collusion between instructors and students.

The results are also consistent, however, with several other behavioral models. Students with higher grades may give higher evaluations because the instructors taught the brighter students. It is also possible that a positive correlation between grades and evaluations will occur if the better instructors (who justifiably received higher evaluations) taught their students more, so that the students rightly earned higher grades. Finally, causation may be in the opposite direction from that usually assumed, and ". . . an instructor might grade a class harshly or generously because of the ratings he receives (or anticipates)" (Doyle, 1974).

Many other studies have found no relationship between grades and evaluations. These are well summarized by Costin *et al.* (1971) and Menges (1973). But as McKenzie and Tullock (1975) point out, the lack of a correlation between grades and evaluations does not necessarily lead to a rejection of the hypothesis that more lenient instructors receive higher evaluations. If instructors become more lenient in the hope of receiving higher evaluations, the students may respond simply by studying less and learning less, yet receiving no lower grades. This is particularly likely if students value additional leisure time highly. As a result, the use of grades

*Professors Palmer and Carliner are with the University of Western Ontario; Professor Romer is with Carnegie-Mellon University.

(uncorrected for the knowledge obtained by the students) as a measure of instructor leniency may be quite misleading.

Attempts to measure the relationship between learning and evaluations of instructor effectiveness have yielded mixed results. Capozza (1973) reported a negative and significant relationship, but he has since indicated to us that with a larger sample his results are no longer statistically significant. Besides using grades as a measure of leniency (which may be inappropriate), he failed to include any variables to explain why some learn more than others. Rodin and Rodin (1972) found a significantly negative relationship, but their study has been criticized in several respects (see Frey, 1973; and Eble, 1974), such as small sample size and the omission of variables. Crowley and Wilton (1974) found a positive but insignificant relationship between some components of evaluations and the amount students learned in economics, and significantly positive relationships have been reported by Gessner (1973), Frey (1973), and Doyle and Whitely (1974).

It appears, then, that the issues have been clouded by rhetoric and the complexity of the relationships. What is needed is a model that measures the impact of the instructor on student learning, corrected for other possible influences—one which measures the leniency of the instructor, correcting for other influences on student grades, and which then relates these measures to evaluations of instructor effectiveness, again correcting for other possible influences. In this report we describe a sequential, three-equation model to determine the effects of learning and leniency on evaluations.

Model Specification*

The knowledge of economic concepts gained by a student in the micro-economic portion of an introductory course depends upon many things, most of which are quantifiable. These are as follows:

1. *Previous knowledge of economics.* Students who know more at the beginning of a course may also know more at the end.

2. *Previous study of economics.* The student who has had economics in high school or college might be expected to know more at the end of the course.

3. *Study of calculus.* Those with a calculus background may learn microeconomics more easily; this may also be a proxy for analytical and mathematical aptitude as suggested by Crowley and Wilton (1974).

4. *Academic average.* Students with a high grade point average tend to do well in economics, either because of high aptitude or high motivation.

5. *Academic year.* Upper-class students may be more mature and may learn more than first-year students.

6. *Time of class.* The time of day when the class meets may affect student learning.

7. *Size of class.* Students in small classes may learn more than those in large classes (or vice versa), other things equal.

8. *Sex of student.* Several studies have shown that females learn less than males in introductory economics, although some of these results appear to be questionable.

*This is a brief summary of the remainder of the report, shortened and simplified because of lack of space. —*The Editors.*

In September of 1974, students in 14 sections (sections averaged 65 students) of the microeconomics portion of Principles of Economics were pretested with a 19-item multiple-choice examination similar to the American Test of Understanding in College Economics (TUCE) but modified for Canadian students. Special proctors administered the test, which instructors were not permitted to see. The same test was given again at the end of the term in December. Those who dropped out or changed sections were omitted, leaving a sample of 617 students. Common textbooks and reading lists were used. There was a high degree of correspondence between the material covered in the classes and the content of the test. Because multiple-choice tests are used throughout the term in some sections more often than in others, an additional variable—experience with multiple-choice questions—was added to our analysis. (This became variable No. 9.)

Several equations were used. The "knowledge equation" was designed to gauge the instructor's contribution to student knowledge of economics. With the exception of the instructor variable, the variables in this equation are defined above. INST (instructor) is a set of dummy variables—one each for all but one instructor, who serves as a kind of "numéraire." The set of estimated coefficients thus gave us an estimate of the contribution of each instructor to student knowledge, net of the contribution of the omitted teacher. A relatively high value of the estimated coefficient is associated with an instructor whose contribution to student knowledge is relatively great.

The "leniency equation" was used to determine the instructor's leniency in assigning grades to students, controlling for other variables which might affect each student's grade. Aside from instructor leniency, the student's grade (on a numerical scale with 100 as the maximum) depends on variables 2 through 9 as defined above. Here the coefficients of INST provide a measure of the relative leniency of each instructor, net of the leniency of the numéraire teacher. High values of these coefficients are associated with the relatively more lenient instructors. Teachers were rated in evaluations conducted about two-and-a-half weeks before the end of the term. Because perceived leniency may not be closely related to final grades, in estimating the leniency equation we used each student's grade in the course just prior to the time the evaluations were made. (Note that the two equations described can also be used to see whether such variables as sex, calculus, time of class, etc., have effects on student knowledge different from their impact on the student's course grade.)

The evaluation questionnaire included the "overall effectiveness" question: "How would you rate your instructor in terms of general, overall effectiveness as a teacher?" The students gave ratings on an integer scale ranging from 1 (poor) to 5 (outstanding). Because responses were anonymous we were forced to use section averages instead of each student's evaluation. The "evaluation equation" contained the estimated coefficients on contribution to learning from the first equation, and instructor leniency from the second equation. The estimates of this equation indicate whether or not the amount taught to students by a given instructor and that instructor's leniency in grading have a statistically significant influence on student ratings.

Results

The regressions for the first two equations have most of their explanatory variables in common, so the results can be discussed in terms of the impact of each of these variables.

Previous economics instruction appeared to have no positive effect on the student's knowledge or grade in the principles course. Indeed, having had previous economics may even have an adverse effect. Since nearly all who had economics instruction received it in a secondary school, questions may be raised about secondary-school economics. It is possible that a course called "economics" may, in fact, bear little resemblance to the college course. Another possibility is that the high school course is badly taught, or that it gives the student a false sense of having already mastered the material. Either way, the student's performance in the college course would be adversely affected.

Academic average does matter, for students with "A" or "B" averages did better on the posttest and in the principles course. As for *academic year*, upper-class "A" and "B" students get higher grades than freshmen in their sections with similar knowledge and academic background.

Sex of student appears to make little difference, for male and female students of like background did not differ significantly in their performance either on the posttest or in the course itself. Controlling for pretest performance and academic background gave a negative but quite insignificant coefficient on sex.

Those who have not had a *calculus* course do slightly (but statistically significantly) better on the posttest than students who have taken a half-course, *ceteris paribus*. On the other hand, the lack of a calculus background works to the student's detriment in regard to the grades earned in the principles course. A possible explanation is that the posttest measures knowledge of, and ability to deal with, basic economic concepts and does not reward analytical ability *per se*, while lectures and course tests may be more directly concerned with the tools of analysis and hence reward more highly those with greater training in calculus.

Time and class size do not affect the student's knowledge or course grade.

Pretest performance is important, for students who enter the course knowing some economics do better on the posttest than those who know little at the start. The same relationship occurs when course grades are taken into account.

Instructors appear to differ in effectiveness. The numéraire instructor's contribution was the least, although the value added by three of the other instructors was not significantly greater than his. At the other extreme, instructor No. 10 achieved very positive results. His students scored 3 points higher on the posttest than the students of instructor No. 1, the numéraire.

Leniency also differs, for some instructors are substantially more liberal than others in grading students. It is interesting to note, however, that the instructor with the least value added (No. 1) and the one with the greatest value added (No. 10) were two of the least lenient. Also, the value added by the most lenient instructor (No. 11) was not significantly greater than the value added by the least lenient.

Instructor evaluations as related to leniency and value added pose the central question of our study. To what extent are instructor leniency and "value added" rewarded by high evaluations? Our measure of contribution to knowledge (CONTRIB) is the set of estimated coefficients from the first regression. Our measure of leniency (LEN) is the set of estimated coefficients from the second regression. When E, the section mean responses to the "overall effectiveness" question, is regressed on these variables plus a dummy (FOR) variable for foreign instructors and an intercept term, the following result is obtained:

$$E = 3.37 - 0.084\,\text{CONTRIB} - 0.020\,\text{LEN} - 0.870\,\text{FOR}$$
$$R^2 = 0.632$$

Both coefficients are close to, and not significantly different from, zero. Apparently, *neither leniency in grading nor contribution to student knowledge has much influence on what students consider to be "effective teaching."*

Conclusion

Our results suggest that in evaluating an instructor's "overall effectiveness" students are not primarily (or even strongly) responsive either to the teacher's ability in developing their knowledge of economics or to the severity of the instructor's grading of student performance. It should be stressed that we have not attempted to capture all the factors that determine evaluations—we have not tried to estimate the equation that best predicts E. Then what *is* measured by student evaluations of teaching effectiveness? This remains an open and disturbing question. Our findings lead us to believe that students evaluate instructors on the basis of subjective feelings which are not necessarily related to the grades they receive or to how much they learn. High ratings for "effective teaching" may thus go to those who have good rapport, who show "concern," or who provide a pleasant classroom atmosphere.

In rewarding instructors with high evaluations, university administrators may not be rewarding the best teachers (if teaching means contributing to student knowledge), but may be inducing instructors to develop those characteristics which produce the "consumption good" which students prefer. It is hard to see how such an incentive system can help to build or maintain great universities. In times of sagging enrollments, however, the short-run appeal of such a reward structure may be irresistable.

While we place a great deal of confidence in our results, we should emphasize that they have been obtained from one introductory course in one department in one university. Results might differ for another department, for students in upper-level courses, or for different types of students at other universities. We suspect that replications will yield similar results, but we encourage others to pursue the question further and to adopt the approach we have used.*

References

D. R. Capozza, "Student Evaluations, Grades, and Learning in Economics," *W.E.J.* (March 1973).

F. Costin, W. T. Greenough and R. J. Menges, "Student Ratings of College Teaching," *Rev. of Educ. Res.* (1971).

R. W. Crowley and D. A. Wilton, "An Analysis of 'Learning' in Introductory Economics," *C.J.E.* (Nov. 1974).

K. O. Doyle, "Generalizability of Evaluative Data," presented to the University of Manitoba Symposium on College Teaching and Its Evaluation (Oct. 1974).

— and S. E. Whitely, "Student Ratings as Criteria for Effective Teaching," *Amer. Ed. Res. Jl.* (Summer 1974).

K. E. Eble, "What are We Afraid Of?" *College English* (Jan. 1974).

*The complete report, with all equations, more detailed definitions of variables, and regressions can be obtained from the Vernon Alden Library, Depository of the Economic Education Awards Program, Ohio University, Athens, Ohio 45701, or from one of the authors. – *The Editors.*

P. W. Frey, "Student Ratings of Teaching: Validity of Several Rating Factors," *Science*, 182 (1973).
P. K. Gessner, "Evaluation of Instruction," *Science*, 180 (1973).
A. C. Kelley, "Uses and Abuses of Course Evaluations as Measures of Educational Output," *Jl. Ec. Educ.* (Fall 1972).
R. B. McKenzie and G. Tullock, *The New World of Economics: Explorations into the Human Experience*. Homewood, Ill.: Irwin, 1975.
R. Menges, "Evaluating Learning and Teaching," in C. R. Pace, Ed., *New Directions for Higher Education* (Winter 1973).
H. G. Murray, "The Validity of Student Ratings of Teaching Ability," presented at the Canadian Psychological Association Meetings (June 1972).
A. Nichols and J. C. Soper, "Economic Man in the Classroom," *J.P.E.* (Sept.-Oct. 1972).
R. R. Perry and R. R. Baumann, "Criteria for Evaluation of College Teaching: Their Reliability and Validity at the University of Toledo," in A. L. Sockloff, Ed., *Proceedings of the Conference on Faculty Effectiveness as Evaluated by Students*, Temple University, 1973.
G. L. Reuber, "Annual Report of the Dean, 1973-74," The University of Western Ontario, 1974.
M. Rodin and B. Rodin, "Student Evaluations of Teachers," *Science*, 177 (1972).

Systematic Economics

John C. Schramm and John E. Maher
Southern Connecticut State College, New Haven, Conn.

Introduction

The purpose of the project "Systematic Economics" was to enhance economic learning in an efficient fashion through a systematic organization of the introductory macroeconomics course and the use of multimedia, a computer terminal in interactive mode, and the adaptation of a business simulation model processed in batch mode. An essential additional phase was the creation of a new test instrument to measure the transfer of economic knowledge to situations not squarely within the economic domain. The project was made possible by a grant from the Calvin K. Kazanjian Economics Foundation.

Most of the students in the course were not majoring in economics (90 percent, in fact), and 90 percent of them were freshmen. Thus, there were some limitations on the intensiveness of the course and the motivation of the students, many of whom were satisfying a three-hour "distribution" requirement in social science. A major goal, then, was not only to teach in systematic fashion the core of macroeconomics, but to teach *systems thinking* through comparisons of models (systems) of behavior from the disciplines of psychology, mathematics and economics.

Teaching in Systematic Fashion

Teaching systematically means that there must first be an orderly statement of objectives for each unit or module of instruction, then a selection of appropriate media, an evaluation of learning by both student and instructor, and finally the selection of the next path to follow. (Figure 1 shows the pathways followed by students while they are learning the concept of Gross National Product.)

The *psychological model* used is the simple trilogy of Eric Berne's *Games People Play* (New York: Grove Press, 1964). Berne tells us that each person's psyche contains a Parent, an Adult and a Child. If communication within the classroom is to result in healthy learning, the dialogues ("transactions") should be among Adults rather than, say, between authoritarian Parent (instructor) and submissive Children (students). Among the *mathematical models* are simple linear equations, like $GNP = C + I + G$. (Gross National Product (GNP) equals Consumption (C) spending plus Investment (I) spending plus Government (G) spending.) The *economic models* include supply and demand and the Keynesian model of income determination.

The course was composed of seven *modules* or units of instruction, which are outlined below:

Module 1: **Introduction to Systems**—features common to such diverse models of thought as languages, mathematics, psychology and economics.

Module 2: **Economic Organization**—contrasting the public with the private sector.

Module 3: **Gross National Product**—national income and the major sectors contributing to GNP (consumers, business, government and foreign nations).

Module 4: **Determination of Level of GNP**—how variations in levels of spending by consumers, business and government cause variations in national income.

Module 5: **Fiscal Policy**—government taxing and spending to stabilize the level of national income, employment and prices.

Module 6: **Money and Banking**—monetary policy, and how the Federal Reserve can contribute to stability by changing the quantity and cost of money.

Module 7: **Inflation and Employment**—problems of trying to attain full employment without inflation and environmental degradation.

The components of a typical module are illustrated by Figure 1, which contains reading assignments, classroom discussion, audiotapes, problems and a test. The fact that the student can measure his or her own performance and decide whether to go more deeply into the subject or to move on to the next topic does not "automate" the instructor out of the process. In fact, the instructor is more readily available

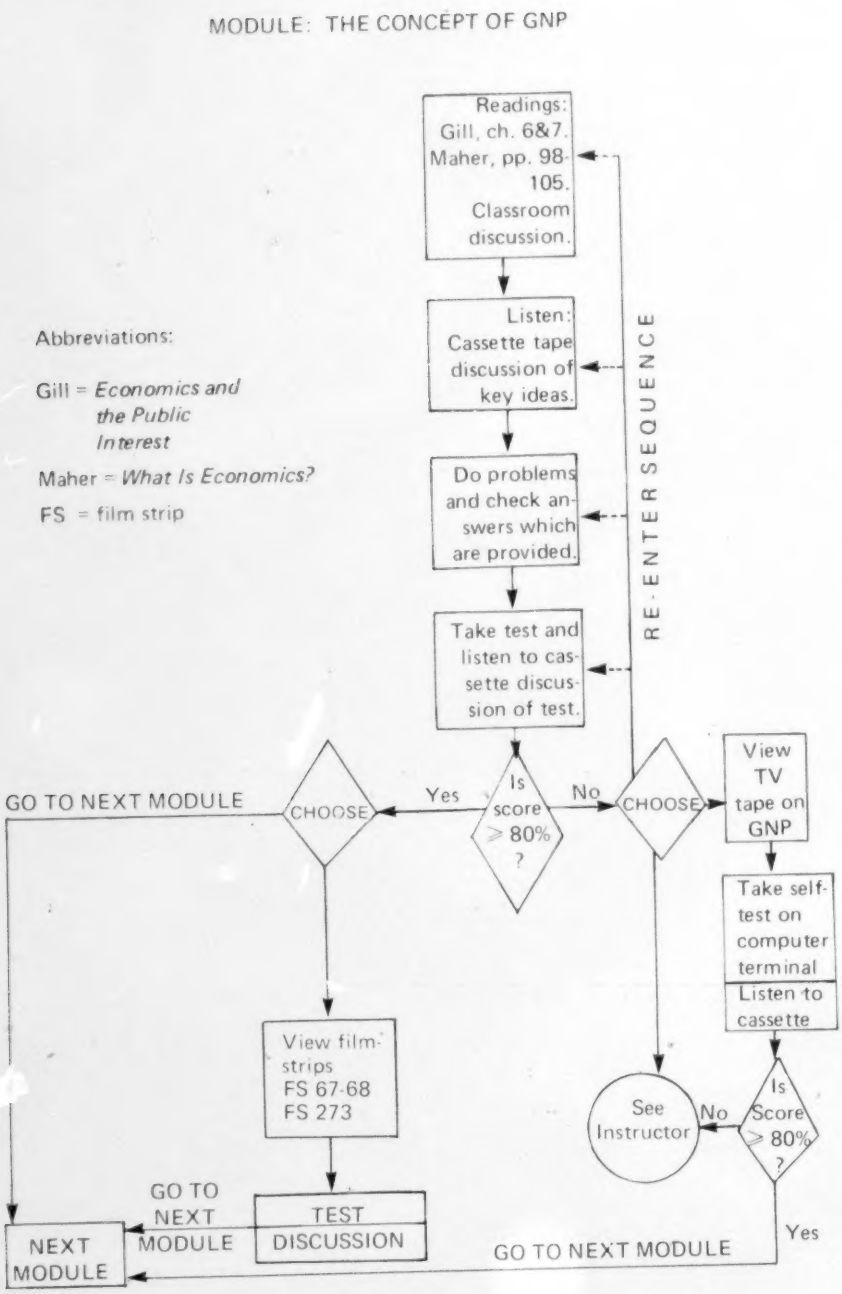
MODULE: THE CONCEPT OF GNP
Abbreviations:
Gill = Economics and the Public Interest
Maher = What Is Economics?
FS = film strip
Readings: Gill, ch. 6&7. Maher, pp. 98-105. Classroom discussion.
Listen: Cassette tape discussion of key ideas.
Do problems and check answers which are provided.
Take test and listen to cassette discussion of test.
RE-ENTER SEQUENCE
Is score ⩾ 80% ?
Yes
No
CHOOSE
GO TO NEXT MODULE
View TV tape on GNP
Take self-test on computer terminal
Listen to cassette
Is Score ⩾ 80% ?
No
See Instructor
Yes
GO TO NEXT MODULE
View filmstrips FS 67-68 FS 273
TEST DISCUSSION
GO TO NEXT MODULE
NEXT MODULE

Figure 1

than is the case in more conventional situations, spending about 40 percent of his time in the Learning Resources Center to discuss problems with individuals or small groups. The remaining 60 percent of the time is devoted to class lectures and discussions, holding office hours, reviewing and evaluating the process, and developing new materials as the need arises.

The Learning Resources Center contains television screens, cassette players, the computer terminal, and equipment for duplicating tapes. (Students may duplicate tapes, take them home, and review them at their own pace.) The computer is used to administer tests and to simulate the banking system. In the latter case, Leonard Rasch's program is used, and the student has a "dialogue" with the computer. The computer gives the size of the economy's money supply, bank reserve requirements, and related information. If the student decides to change something, such as reserve requirements, the computer replies with the result of this move on the money supply, bank reserves, and so on. There is also a business simulation in which students manage the production and sales activities of competing oligopolistic firms. The economic environment generated by the computer (UNIVAC-70) includes industry demand subject to seasonality, cyclic forces, secular trend, and random influences. Decision variables for each company are price, quantity, expenditures on advertising, research and development, salesmen's commissions, new plant, loan repayment, debt expansion, and dividends.

Evaluation

Some of the teaching techniques described above are not new, but have been used in economics courses during the past decade. What appears to be new is the systematic compilation of multimedia with self-testing, and the creation of a test to measure ability to transfer economic concepts to other areas of learning.

To measure the results of this system of teaching, tests were administered to two randomly assigned sections of freshmen at the beginning and at the end of the fall 1974 semester. The Test of Understanding in College Economics (TUCE) and the Test of Ability to Transfer Economic Concepts (TRECK) were used. The former is a nationally normed standardized instrument which is widely used and well known among college economists. The latter was developed specifically for the project and has not yet had nationwide exposure.

TUCE Results

Both sections made gains on the TUCE, and these gains were statistically significant beyond the one-ten-thousandth level of probability. Section One made a mean gain of 40 percent, while Section Two's mean gain was 22 percent. Since the latter group actually did better on the pretest, its poorer showing is probably attributable to the fact that the session was held at a late afternoon hour when absenteeism is high and students are at a low ebb. The mean percentage gain for the national norming group was 41, but students at Southern Connecticut State College do not score as high on general measures of ability nor on subject matter achievement as do freshmen at many other colleges and universities. Indeed, their pretest score on the TUCE was below that of the national norming population.* Comparisons were also made between the 1974 students and similar groups tested in the fall of 1973. The 1973 groups did not receive autotutorial instruction. Here,

*Many research projects have shown that pretest performance is a good predictor of post-test performance. – *The Editors.*

the 1974 Section One scored well above the 1973 Section One on the posttest (2.93 points higher), while there was no significant difference between the 1974 Section Two and the 1973 Section Two. These results suggest that the students exposed to the experimental treatment do as well as, or better than, students not getting the full treatment. (Note that in both years the students were exposed to the same text and were taught by the same instructor.)

TRECK Results

Questions on the TRECK test require students to apply economic principles to challenging and "off-beat" material. Most of the items were propounded in Maher's *What Is Economics?* (New York: John Wiley, 1969) and were tried with college and university professors and with social science teachers in National Science Foundation workshops. Correlations were computed between student scores on TRECK and scores on the TUCE, resulting in a correlation that was significant at the 5-percent level. A sample item follows:

13. Which of the following processes resembles an economic process—that is, a process that can be analyzed in economic terms?
    (a) Attending a baseball game
    (b) Telephoning a bank
    (c) Taking a multiple-choice exam in biology
    (d) Watching an automobile assembly line

The correct response is "c" because taking a multiple-choice exam in biology suggests the choosing of alternatives so as to maximize one's grade, a process not unlike choosing from among alternative resources to maximize profits. (Most economists chose "c.")

Correlations computed between TRECK scores, course ratings, and instructor ratings were low, suggesting that the instrument is independent of student evaluations of course and instructor. While there is significant association of performance on TRECK with TUCE scores, the value of the coefficient is low enough to warrant the assumption that something different is being measured, namely, the transfer of learning to distinctively different situations. Item analyses have been made of the 30 questions on three occasions, revealing that only three items are weak in discriminating among top, middle and lowest thirds of the respondents.

Both sections made statistically significant gains on the TRECK, although the performance of Section Two was, as with the TUCE, relatively poorer. The 1974 sections achieved significantly higher gain scores than the 1973 sections. Thus, it is concluded that the experimental system was effective not only in increasing economic knowledge and understanding, but in teaching students to apply some basic economic concepts to areas outside the discipline.

Later Testing

Testing was continued through the spring and summer of 1975. Of course, the student population had changed. Students in the spring semester courses are usually in their second semester while those enrolled in the fall are generally in their first semester of college. Many of the students enrolled in the summer are regularly attending a different college during the normal academic year. TUCE posttest scores were higher in the spring of 1975 than were the scores for the fall 1973 and fall 1974 sections, and the mean score for the summer group was highest of all. TRECK scores were slightly lower for the spring 1975 sections, as compared with

the fall 1974 sections (but higher than the fall 1973 groups); and again the summer group in 1975 achieved the highest TRECK score.

Student Evaluation of Instructor and Course

Most students have been enthusiastic about the program. They like using different media, setting their own pace, and getting continuous monitoring of their performance. They also like the tutorial sessions where they can meet individually with the instructor. A small minority cannot work effectively on their own and feel they might get better grades in an orthodox course where the instructor simply lectures to them. We are now looking for ways of handling the special problems of these students.

The students were asked to rate the instructor on a scale of 10 to 100 in terms of such things as interest in subject, sympathetic attitude, fairness in grading, liberal attitude, presentation, sense of proportion, self-reliance, and intellectual stimulation. In the fall of 1974 the scores on these items ranged from 71.1 (presentation) to 92.6 (liberal attitude). In the spring of 1975 the lowest score was 79.0, and the highest was 92.4. There had been statistically significant increases in the ratings for "sympathetic attitude" and "presentation."

The course was rated on a scale of 10 to 50 in terms of clarity of objectives, agreement of objectives, text, tests as aids, freedom to select, and the like. In the fall of 1974 these scores ranged from 29.2 (freedom to select) to 43.2 for an overall instructor rating. In the spring of 1975 there were statistically significant gains in the ratings given for "clarity of objectives" and "agreement of objectives."

Summary

It may help to summarize the learning devices used with this systematic approach to teaching economics. These are as follows:

1. A 23-minute TV tape explaining the teaching system, written by Arthur Kelsey and narrated by John Maher.
2. A 25-minute TV tape explaining the determination of the level of GNP, written by John Maher and narrated by Arthur Kelsey.
3. A 30-item test (TRECK) measuring the ability to transfer economic concepts.
4. Computer programs written and programmed by Leonard Rasch, including two self-tests, an interactive simulation of fractional reserve banking, and a business management interactive simulation.
5. A carousel containing 80 slides giving an overview of macroeconomics, developed by John Maher.
6. Six cassette tapes containing discussions of income determination, national income accounting and several tests.
7. Detailed statements of learning objectives, problems, tests and instructors' guides, written by Leonard Rasch.

These materials, used in the manner previously described, appear to have been more effective than conventional methods of instruction in teaching macroeconomics to undergraduates, and have helped students to learn how to transfer economic principles to areas outside the strict domain of economic science.*

*Because of space limitations it has been necessary to condense the original report. The complete report, which contains more details on the system, test statistics, computer printouts, etc., can be obtained from the Vernon R. Alden Library, Ohio University, Athens, Ohio.